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THESAURUS CONCHYLIIORUM,

OR

MONOGRAPHS

OF

GENERA OF SHELLS.

EDITED BY

G. B. SOWERBY, F.L.S.

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VOL. II.  
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LONDON:  
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There is no *pl. cxxxi*, nor *ccc*, while there are two marked *ccvii*. *Pls. cxxv-cxxxi* have been wrongly numbered *ccxiii-ccclx*, and *pls. dxiii, dxiv* are numbered *dlxxiii & dlxxiv*.

In Vol. IV, Monograph on *Murex* and *Trophon*, p. 56 is blank, and pp. 57, 58 are nonextant, whilst in Vol. V there are no pages numbered 255-248.

Most of the monographs are by the editor. The others include:—

*Cyclotoma*, *Columbella*, *Voluta*, *Lingula*, *Terebratula*, *Orbicula*, *Crania*, *Hippionyx* and *Thecidium*, by G. B. Sowerby, 1st of the name.

*Terebra*, by R. B. Hinds.

*Tellina*, *Nuculidae* and *Solarium*, by S. Hanley.

*Cymba* and *Melo*, by W. J. Broderip.

*Bullidae*, *Eulima*, *Niso*, *Leiostraca*, *Oboliscus*, *Pyramidella*, *Monoplyma*, *Stomatellinae*, *Cyclostrema*, *Adeorbis* and *Tainostoma*, by A. Adams.

*Cemorin*, *Cranopsis*, *Zeidora*, *Rimula*, *Emarginula*, *Scutus* and *Tugalia*, by A. Adams and G. B. Sowerby, 2nd of the name.

The last two parts, containing the monographs on *Turbo* and the continuation of those on *Conus* and *Voluta*, are by G. B. Sowerby, 3rd of the name.



# MONOGRAPHS

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 ‘THESAURUS CONCHYLIIORUM.’

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The supplementary plates and descriptions of *Cyclostoma*, pl. 31 a, 31 b, and pages 157\*, 168\*, should be placed following pl. 31 and page 156 in Vol. I., if that volume is still unbound. If not, at the end of Vol. II.

As the plan formerly recommended, of binding the plates separately from the text, does not seem to succeed, perhaps it will be better to place the plates after the text of each genus. For the convenience, however, of those who wish it, a second copy of the Title and Contents is given.



## NOTICE.

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IN publishing the completion of the Second Volume, the Editor again thanks his friends for their support, and again apologizes for all delays. Any considerable increase in the former will be followed by a decrease in the latter.

Many of the Subscribers are already aware that the Editor's father, Mr. G. B. Sowerby, F.L.S., to whom they are indebted for several Monographs, has been removed by death, after a life devoted to Science. His family, his acquaintances, his commercial patrons, and his fellow labourers in Natural History, will ever remember him with affection and honour, as a husband, a father, a friend, a man of integrity, and a useful contributor to knowledge.

The business at 70, Great Russell Street, is continued by a part of the family.



## MONOGRAPH OF THE GENUS

## CANCELLARIA.

*Gen. Char.* Molluscum trachelipodum marinum. Testa spiralis, solida, plerumque cancellata, spirâ brevi, aperturâ magnâ, columellâ spiraliter plicatâ. Operculum nullum.

A marine mollusc belonging to the order of *Trachelipoda*, having a solid, generally cancellated shell with a short spire, large aperture and spirally plicated aperture. No operculum.

1. CANCELLARIA CASSIDIFORMIS (pl. xcii. f. 15.), *Sowerby*, *Pro. Zool. Soc.* 1832. p. 53.

C. testâ crassâ, sub-turbinatâ, spirâ brevi, apice acuminato, suturâ canaliculatâ; anfractibus angulatis, ad angulum acutè tuberculatis, spiraliter sulcatis; aperturâ oblongâ anticè vix emarginatâ, labio interno expanso; columellâ triplicatâ; colore fusco, albo unifasciato.

Thick, turbinated, with a short, sharp spire, the whorls of which are angulated, with sharp tubercles at the angle and a groove at the suture. The aperture is long, with the inner lip spread and the outer lip with slightly raised ridges inside. From Panama.

2. CANCELLARIA SPENGLERIANA (Pl. xciii. f. 29.), *Deshayes*, *Enc. Méth.* p. 185. C. Tritonis, *Sowerby*, *Conch. Illustr.* f. 15.

C. testâ sub-ovali, alternatim spiraliter decussatâ; spirâ acuminatâ, anfractibus angulatis, costatis; costis distantibus, crassis, ad angulum acutè tuberculatis; aperturâ ovali, lævi; columellâ expansâ, obtusè triplicatâ, granulatâ; labio externo denticulato posticè sub-canalifero, anticè paululùm emarginato. Colore pallidè fulvo, obscurè bifasciato, ad angulum fusco.

This shell is from Cagayan, Isle of Mindanao. It is decussated by spiral lines crossing thick, distant ribs; the whorls are strongly angulated near the suture, and the ribs sharply tuberculated at the angle; the folds on the columella, which is granulated, are



irregular and obtuse, the outer lip is denticulated. The colour is pale buff, obscurely banded with grey and dark chesnut behind the angle.

3. CANCELLARIA NODULIFERA (pl. xciv. f. 57.), *Sowerby*, Tanc. Cat. Appendix, p. 15. (1825). Conch. Illustr. f. 21. *C. Imperialis*, *Michelin*, Guérin, Mag. Hist. Nat. (1832).

*C. testâ* ovato-ventricosâ; spirâ brevi; anfractibus posticè angulatis; costis validis, distantibus, ad angulum acutè tuberculatis; lineis elevatis spiralibus; suturâ profundè canaliculatâ; aperturâ magnâ, lævi: columellâ granulatâ, obtusè triplicatâ. Colore fulvo, albo prope medium anfractuum cincto.

From Japan, a ventricose shell, with broad, distant ribs crossed by narrow spiral ribs or striæ. The whorls are angular and the suture canaliculated, the ribs tuberculated at the angle of the whorls. It is of a pale fawn or yellow colour with a white band near the centre of the whorls. The shell figured by Kiener as the same species, under Michelin's name of *C. imperialis* may be really the same, but it has no canal at the suture. Nor does Kiener inform us why, supposing the species to be the same, he does not adopt the name first published. Michelin's shell resembles our *Cassidiiformis*.

4. CANCELLARIA CUMINGIANA (pl. xciii. f. 20.) *Petit*, Guérin, Mag. Hist. Nat.

*C. testâ* turbinatâ, validè sulcatâ, anticè umbilicatâ; spirâ brevi; anfractibus rotundatis. Aperturâ magnâ, ovali, plicis tribus obtusis. Colore fusco, aperturâ albâ.

Sulcated, rather turbinate with short rounded spire; with an umbilicus behind the columella and a smooth oval aperture. From Payta.

5. CANCELLARIA SOLIDA (pl. xcii. f. 4.), *Sowerby*, Pro. Zool. Soc. 1832, p. 52.

*C. testâ* sub-ovatâ, sub-turbinatâ, solidâ, lævi; spirâ brevi, ad apicem costatâ, aperturâ ovali, oblongâ; labio externo validè bi-emarginato: colore fulvo.

Smooth, turbinated, rather oval, of an orange colour, with the canal strongly notched and the outer lip emarginated.

Found at Real Llejos in Central America.

6. CANCELLARIA BULBULUS (p. xcv. f. 64.), *Sowerby*, Pro. Zool. Soc., 1832, p. 55.



*C. testâ sub-turbinatâ, sub-ovali, lævi; spirâ acuminatâ, anfractibus superioribus decussatim costatis; ultimo prope suturam et anticè spiraliter striato; aperturâ pyriformi; plicis columellæ tribus, primâ acutâ; labio externo acuto, ad canalem paululùm emarginato; colore fulvo.*

Found at Real Llejos in Central America in company with *C. solida*, which it much resembles; but the apex is longer and the ribs continued to the last whorl. The lower part of the body whorl is spirally striated.

7. *CANCELLARIA OVATA* (pl. xcii. f. 2.), *Sowerby*, Pro. Zool. Soc. 1842, f. 53.

*C. testâ ovali, lævigatâ, spiraliter sulcatâ; spirâ brevi, acuminatâ, anfractibus decussatim costatis, suturâ distinctâ; anfractu ultimo anticè sub-umbilicato: aperturâ angustatâ; columellâ plicis tribus, quarum primâ prominente, duplicatâ; labio externo, margine dentato, anticè fluctuato, ad canalem emarginato, intus validè sulcato: colore fusco, aperturâ albâ.*

Found at St. Elena, East Columbia, in eight to ten fathoms of water with a sandy bottom. It is oval, with a rather short cancellated spire; the body whorl is grooved, and behind the columella, slightly umbilicated, the upper fold of the columella is duplicate and prominent; the mouth is interiorly ribbed and the outer lip denticulated at the edge. The colour is dark chesnut with pale bands in both directions; the aperture white.

8. *CANCELLARIA OBESA* (pl. xciii. f. 37.), *Sowerby*, Pro. Zool. Soc. 1832, f. 52.

*C. testâ crassâ ovatâ, ventricosâ, lævi; spirâ brevi, acuminatâ, anfractibus decussatim costatis, suturâ distinctâ; anfractu ultimo spiraliter obsoletè sulcato; aperturâ subangustâ, internè validè costatâ, prope marginem costis validè elevatis; columellâ plicis duabus, posticâ crassâ, duplicatâ; labio externo prope suturam et ad canalem emarginato. Colore, pallidè fasciatim fulvo.*

Found at Puerto and in the gulf of Dulce, Central America, in fifteen fathoms of water. It is a ventricose, heavy shell, with a short spire which is decussated, but in the body whorl the spiral grooves are nearly obsolete. The mouth is internally ribbed and the upper fold of the columella is thick and duplicated. It is like *C. ovata*, but much more ventricose.



9. *CANCELLARIA RETICULATA* (pl. xcii. f. 17.), *Lamarck*,  
E. M. f. 375. f. 3.

*C. testâ solidissimâ, costis undulatis transversè et longitudinaliter decussatâ; spirâ acuminatâ; anfractibus rotundatis; aperturâ anticè subquadratâ: columellâ crassâ, plicis tribus validissimis, acutè prominentibus; labio externo costis sexdecim crenato: colore fulvo, fusco irregulariter fasciato.*

A thick shell, with the spire rather prominent, reticulated by obtuse ribs crossing each other. The aperture is rather wide at the anterior, the folds of the columella very prominent and sharp, the outer lip is strongly ribbed from within.

West Indies.

10. *CANCELLARIA CANDIDA* (p. xcii. f. 8.), *Sowerby*, *Conch. Illustr.* sp. 2.

*C. testâ ovali, albâ; costis longitudinalibus, sub-noduliferis, transversè striatis decussatâ; spirâ acuminatâ, anfractibus subquadratis; columellâ vix incrassatâ; plicis duo, unâ prominente: labio externo internè costato.*

Resembling *C. reticulata*, but white, with the longitudinal ribs sharper and more defined in proportion to the crossing striæ. Polynesia.

11. *CANCELLARIA AUSTRALIS* (pl. xciv. f. 72, 73.), *Sowerby*, *Conch. Illustr.* sp. 24.

*C. testâ albâ, ovali, decussatâ inter costas minutè striatis; spirâ acuminatâ, anfractibus rotundatis; aperturâ internè plicatâ; columellâ plicis tribus obtusis.*

This shell, which is from New South Wales, is more oval and ventricose than *C. candida*, with the folds of the columella more obtuse, and the space between the cross ribs minutely striated.

12. *CANCELLARIA ALBIDA* (pl. xciv. f. 43.), *Hinds*, *Zoology of Sulphur*, p. 42.

*C. testâ ovali sub-elongatâ costis, longitudinalibus, sub-noduliferis transversè striatis decussatâ; spirâ acuminatâ, anfractibus subquadratis; columellâ vix incrassatâ; plicis tribus obliquis; labio externo internè costato.*

A narrower shell than *C. candida*, with the three folds of the columella less prominent and more equal.



13. *CANCELLARIA URCEOLATA* (pl. xciv. f. 48.), *Hinds*, Zool. Sulphur. p. 41. pl. xii. f. 7, 8.

C. testâ subcylindricâ, lævigatâ, epidermide fuscâ indutâ; spirâ acuminatâ, anfractibus angulatis, longitudinaliter costatis, costis decussatis, ultimi anfractus distantibus, complanatis; anfractu ultimo anticè coarctato, ad columellam umbilicato; aperturâ internè leviter costatâ labio externo anticè flexuosâ, ad canalem leviter emarginato; columellâ biplicatâ.

This shell was procured in the gulf of Papagayo and at San Blas, in seven to fourteen fathoms water, it is of an oval form, with the last whorl subcylindrical; the spire is acuminate, consisting of angular whorls which are decussated and ribbed. The body whorl is rather contracted anteriorly and umbilicated near the anterior termination of the columella. The ribs on the body whorl are distant, broad, and flat.

14. *CANCELLARIA VENTRICOSA* (pl. xcv. f. 77.), *Hinds*, Pro. Zool. Soc. 1843, p. 47. Zool. Sulphur. pl. xii. f. 11, 12.

C. testâ ovali, cancellatâ, ventricosâ; spirâ subelongatâ, acuminatâ; anfractu ultimo, anticè subumbilicato: aperturâ lævi; columellâ triplicatâ; labio externo ad marginem denticulato. Colore fulvo.

From Realejo, on the W. coast of America. Something like *C. candida*, but of a brown colour, with a more acuminate spire, the whorls of which are less rounded; and the mouth is smooth.

15. *CANCELLARIA GRANOSA* (pl. xcv. f. 58, 59.), *Sowerby*, Conch. Illustr. No. 15. fig. 17. (f. 16, exclusâ.)

C. testâ ovali, costis noduliferis granulatâ; spirâ acuminatâ; anfractibus angulatis, angulo prominente granoso: aperturâ intus leviter costatâ; columellâ granulatâ, obtusâ triplicatâ. Colore pallidè fulvo-rufescente, ad angulum anfractuum maculis castaneis.

This shell, from Van Dieman's Land, is distinguished by the spiral ribs forming a series of tubercles in passing over the longitudinal ribs, which are still more strongly tubercled at the angle of the whorls. The columella is granulated and its folds small; the mouth is lightly ribbed within. The shell is of a delicate buff colour with chesnut spots on the angle of the whorls, and the mouth pale fawn. We separate the shell represented in Conch. Illustr. f. 16.

16. *CANCELLARIA UNDULATA* (pl. xcii. f. 12.; pl. xcv. f. 79.), *Sowerby junr.*, Pro. Zool. Soc. 1848.



*C. testâ ovali, lincis undulatis, paululùm elevatis cinctâ; costis crassiusculis subnoduliferis; anfractibus subangulatis; aperturâ internè striatâ; columellâ crassâ, granulosâ: colore fulvo-fusco, precipuè ad angulum anfractuum, interruptum fasciato.*

From Van Dieman's Land. Mr. Cumìng possesses a variety of stunted growth from the Philippines. This species was originally included with the preceding, from which it differs in the fineness of the striæ, and the smallness of the spire compared with the body whorl.

17. *CANCELLARIA BUCCINOIDES* (pl. xcii. f. 10, 11.), *Sowerby*, *Pro. Zool. Soc.* 1832, p. 54.

*C. testâ oblongâ, costis longitudinalibus noduliferis, et costis transversis subduplicatis corrugatâ: aperturâ ovatâ oblongâ, margine diffusâ, emarginatâ internè leviter costatâ, posticè subcanaliferâ; columellâ bi-plicatâ, granuliferâ. Colore fulvo, inter costas fusco, in medium anfractuum albo-unifasciato.*

From Real Llejos, Iquique, Callao, and Puerto Portrero. The more or less duplicated ridges in crossing the longitudinal ribs form small nodules particularly at the angle of the whorls; but they are much more distant than in *C. granulosa*.

18. *CANCELLARIA INDENTATA* (pl. xcii. f. 7; pl. xcv. f. 80.), *Sowerby*, *Pro. Zool. Soc.* 1832, p. 54. *C. cremata*, *Hinds*, *Voy. Sulphur.* p. 42. inclusa.

*C. testâ oblongâ clathratâ, ponè columellam umbilicatâ, costis longitudinalibus et transversis noduliferis cancellatâ; anfractibus angulatis; aperturâ plerumque subquadratâ, posticè et anticè subcanaliferâ, internè costatâ; labio externo obtusè dentato, anticè emarginato: columellâ corrugatâ, irregulariter triplicatâ; colore fusco.*

From Panama, and a dwarf variety from the gulf of Forseca. The shell is cancellated by equidistant bars crossing each other, and forming nodules at their junction. The mouth is strongly ribbed internally; the outer lip is rather dilated and dentated; the columella is corrugated, and has three irregular folds, of which the lowest is the smallest. After carefully noticing the gradation of specimens, I am led to regard the variety, fig. 80, named *C. cremata* by Hinds, as correctly included in this species, although more conical in form. There is also a dwarf variety which is short and rounded, left out of the plates by oversight.



19. CANCELLARIA MITRIFORMIS (pl. xciii. f. 24. var. f. 35.), *Sowerby*, Pro. Zool. Soc. 1832. p. 51. *C. uniplicata*, *Sowerby*, P.Z.S. 1832. p. 173.

*C. testâ oblongâ*, costis longitudinalibus et transversis numerosis, subnoduliferis cancellatâ; spirâ acuminatâ; anfractibus angulatis; aperturâ lævi; labio externo dentato, emarginato; columellâ anticè productâ, crenulatâ, irregulariter bi-plicatâ; colore brunneo; variat nigricante.

From Panama. In the variety named *C. uniplicata*, by Mr. Sowerby, senior, there is an indication of a second fold, which in an intermediate specimen becomes more decided: the gradation in other respects leaves no doubt on the mind of the describer of *C. uniplicata*, that, however different the dark-coloured specimens may appear, they are but incompletely formed varieties of *C. mitriformis*, which is one of the most beautiful, as well as rare, of the *Cancellariæ* in Mr. Cuming's collection.

20. CANCELLARIA CLAVATULA (pl. xcii. f. 13; pl. xcv. f. 67.), *Sowerby*, Pro. Zool. Soc. 1832. p. 52.

*C. testâ elongatâ*, clavatâ; costis longitudinalibus transversè striatis; varicibus raris elevatis: spirâ acuminatâ anfractibus angulatis: aperturâ internè lævi, prope marginem dentatâ; labio externo emarginato, columellâ bi-plicatâ. Colore fulvo vel fusco bilineato. Variat striis ad costas acutè elevatis.

From Panama and Payta, where it was taken up from sandy mud in seven fathoms water. Like the last species it is slender in form. It has elevated varices at different periods of growth, like those in the genus *Triton*. The mouth is laterally prominent. Fig. 67 represents a variety with the crossing striæ elevated into points at the angle of the whorls.

21. CANCELLARIA TÆNIATA (pl. xcv. f. 75, 76.), *Sowerby*, Pro. Zool. Soc. 1848.

*C. testâ oblongâ*, turrîtâ; costis numerosis, transversè striatis ad angulum anfractuum acutè angulatis; spirâ acuminatâ, apice mammelliferâ; aperturâ internè lævigatâ, margine acuto, columellâ lævi, biplicatâ. Colore pallidissimè fulvo, fusco tæniato.

Shell oblong, turretted, with numerous transversely striated ribs, which are elevated into acute points at the angle of the whorls. The colour is disposed in transverse narrow bands on a very pale ground. Locality unknown.



22. *CANCELLARIA PISCATORUM* (pl. xciii. f. 33.), *Chemn. Conch. t. 10. f. 1151, 1152.* C. nodulosa, *Lam. Anim. sans vert.*

C. testâ ovali, turritâ, ponè columellam umbilicatâ; costis acutè noduliferis, ad angulum anfractuum acutè elevatis; aperturâ magnâ, posticè angulatâ; labio externo dentato; columellâ tortuâ, obscurè triplicatâ. Colore griseo, fusco maculato, aperturâ fuscâ, albo unifasciato; margine albo.

From the sands at the mouth of the river Gambia. The mouth is large and angular, internally of a dark-brown colour, with white edge and one white band in the centre, the spine is formed of very distinctly angulated whorls. The ribs form sharp points at the angles.

23. *CANCELLARIA GEMMULATA* (pl. xcii. f. 14.), *Sowerby, Pro. Zool. Soc. 1832. p. 55.*

C. testâ ovato-ventricosâ, albâ, costis numerosis noduliferis et sulcis elevatis cancellatâ; spirâ breviusculâ, anfractibus rotundatis; aperturâ magnâ, posticè subcanaliculatâ, internè costatâ, margine dentato; columellâ anticè triplicatâ, posticè unipicatâ.

Of an oval form, with smooth nodules formed by transverse ridges passing over regular ribs. Found in Nocoya bay, in a bottom of sandy mud.

24. *CANCELLARIA DECUSSATA* (pl. xcii. f. 3.), *Sowerby, Pro. Zool. Soc. 1832. p. 55.*

C. testâ ovatâ decussatim costellatâ, costis ad juncturam noduliferis; interstitiis quadratis; spirâ acuminatâ, anfractibus rotundatis; aperturâ ovali, internè leviter costatâ; labio externo crenato; columellâ umbilicatâ, validè triplicatâ: colore fusco, albo unifasciato.

From Panama and Puerto Portrero, in sandy mud, ten or thirteen fathoms water. Of an oval form, cancellated by equidistant ridges crossing each other, and forming little knots at the juncture. The interstices are square and smooth.

25. *CANCELLARIA ELEGANS* (pl. xciii. f. 36. pl. xcvi. f. 104.), *Sowerby, Genera of Shells.*

C. testâ ovali, minutè lineis elevatis acutis decussatâ; spirâ acuminatâ; anfractibus ad suturam subcanaliferis; aperturâ internè costatâ; labio externo denticulato; columellâ subumbilicatâ, rugosâ, triplicatâ: colore fulvo, albo bifasciato; aperturâ albâ.



Of an oval form, minutely crossed by sharp ribs and striæ. From the Isle Ticao. Taken in sandy mud at a depth of six fathoms.

26. *CANCELLARIA ASPERELLA* (pl. xciii. f. 38. pl. xcv. f. 74), *Lamarek*, E. M. p. 347. f. 3.

C. testâ ovali, longitudinaliter costis angulatis, et transversè lineis elevatis acutis, asperrimè decussatâ; spirâ acuminatâ; anfractibus ad suturam canaliferis; aperturâ internè costatâ; labio externo denticulato; columellâ subumbilicatâ, rugosâ, triplicatâ: colore fusco, obscure fulvo unifasciato.

Much more coarsely and sharply decussated than *C. elegans*.

From Baclayon, Island of Bohol, in seventeen fathoms water.

27. *CANCELLARIA MELANOSTOMA* (pl. xcv. f. 78), *Sowerby junr* Pro. Zool. Soc., 1848.

C. testâ ovali, longitudinaliter striis noduliferis et transversè striis alternatis minutè decussatâ; spirâ acuminatâ, anfractibus paucis, rotundatis; aperturâ ovali, magnâ, internè costatâ; labio externo denticulato; columellâ expansâ, anticè granulatâ, triplicatâ: colore pallidè fulvo fusco, latè fasciato; labio externo bi-maculato, columellâ fuscâ nigricante.

The smoothness of the striæ, the more oval form, the peculiar dark colour and granulations of the columella serve to distinguish this species from the preceding. Mr. Cuming possesses the only specimen we have seen.

From an unknown locality.

28. *CANCELLARIA OBLONGA* (pl. xciii. f. 25), *Sowerby*, Tanc. Cat. appendix. p. 15.

C. testâ oblongo-ovali, striis transversis et longitudinaliter minutissimè decussatâ; spirâ acuminatâ, suturâ profundâ; aperturâ oblongâ, internè costatâ; labio externo denticulato; columellâ triplicatâ, anticè rugulosâ: colore pallidè fulvo, fasciis fuscis cincto.

Much more elongated and more minutely striated than *C. elegans*.

Found in coarse sand in the Straits of Maccassar.

29. *CANCELLARIA TESSELLATA* (pl. xciii. f. 32), *Sowerby*, Pro. Zool. Soc., 1832. p. 51.

C. testâ ovali, oblongâ, minutè cancellatâ; aperturâ internè costatâ; labio externo internè dentato; columellâ crassâ, expansâ, bi-plicatâ: colore in maculis fuscis quadratis disposito.



From the bay of Caraccas. A small oval species with the columellar lip much thickened and the colour arranged in three rows of square brown spots.

30. *CANCELLARIA PURPURIFORMIS* (pl. xcv. f. 68, 70), *Valenciennes*, Kiener, Sp. Cocq. viv. no. 27.

C. testâ ovali, spiraliter striatâ, vix longitudinaliter costatâ, spirâ elongatâ, obtusâ, anfractibus rotundatis: aperturâ internè striatâ; labio externo denticulato; columellâ triplicatâ, anticè rugulatâ: colore pallidè sulphureo.

Oval, of a pale sulphur colour, with very obscure ribs, and minute spiral striæ.

Locality unknown.

31. *CANCELLARIA CORRUGATA* (pl. xcvi. f. 92, 93), *Hinds*, Voy. Sulph. Mollusca. p. 42.

C. "testâ bucciniformi fuscâ; anfractibus quaternis, subven-  
triosis, rugis parvis longitudinalibus indutis, lineis impressis  
decussatis; aperturâ oblongâ, fuscâ; labio intus sulcato; colu-  
mellâ plicis duabus albidis instructâ; umbilico nullo; canali  
mediocri."

Resembling *C. Purpuriformis*, but with the upper whorls much more prominent.

From the bay of Guayaquill: seven fathoms, mud.

32. *CANCELLARIA LÆVIGATA* (pl. xcii. f. 16. pl. xevi. f. 81), *Sowerby*, Conch. Illustr. f. 24.

C. testâ ovatâ, lævigatâ, crassâ, spirâ obtusâ, anfractibus sub-  
angulatis, costis lævibus, in ultimo anfractu obsoletis; aperturâ  
internè costatâ; labio externo internè denticulato: columellâ  
granulatâ, triplicatâ. Colore fulvo rufescente, fusco ad angulum  
anfractuum maculato: variat albo.

Similar in form to the preceding, but smooth, the ribs only visible in the upper whorls.

From New South Wales.

33. *CANCELLARIA LACTEA* (pl. xcvi. f. 105), *Deshayes*, E. M. p. 180.

C. testâ obovatâ, lævigatæ simillimâ sed "tenui, translucidâ," anfractibus haud angulatis.

It is by no means clear that this species being "thin and translucent" is the same as *C. lævigata*, which is a very thick shell



with rather angulated whorls. M. Kiener seems, however, to take it for granted.

34. CANCELLARIA SPIRATA (pl. xciii. f. 22), *Lamarck*, Anim. sans vert.

C. testâ ovatâ lævigatâ; spirâ turritâ; anfractibus costatis, ad suturam canaliferis; aperturâ internè costatâ; labio externo lævi; columellâ triplicatâ: colore sub-roseo, maculis fuscis ad angulum anfractuum.

Resembling the coloured variety of *C. lævigata*, in every respect, excepting that the whorls are deeply grooved at the suture.

From Garden Island, Swan River.

35. CANCELLARIA EXCAVATA (pl. xciii. f. 18), *Sowerby junr.* Pro. Zool. Soc., 1848.

C. testâ ovatâ lævi; spirâ acuminatâ, turritâ; anfractibus ad suturam profundè excavatis; aperturâ breviusculâ, angulatâ, labio externo lævi, internè costato: columellâ triplicatâ, umbilicatâ; colore nullo.

Resembling *C. spirata*, but having the aperture short in proportion to the spire and the upper part of the whorls more deeply excavated. The shell is umbilicated and white.

From South Australia.

36. CANCELLARIA COUTHOTI (pl. xcvi. f. 100, 101), *Jay*, Boston American Journal.

C. testâ parvâ, ovali, albâ, minutè spiraliter striatâ; spirâ acuminatâ, anfractibus rotundatis; aperturâ lævi, ovali; columellâ obsoletissimè plicatâ.

More oval in form than the following *C. viridula*, with the columella nearly smooth.

From Massachusetts Bay.

37. CANCELLARIA VIRIDULA (pl. xcvi. f. 102), *Admete viridula*; *Gould*.

C. testâ oblongâ, longitudinaliter obscure costatâ, spiraliter costatâ; spirâ acuminatâ, anfractibus rotundatis; suturâ validâ; aperturâ brevi, lævi; columellâ obsoletè plicatâ; colore nullo; epidermide pallidè viridescente.

Oblong, white, with acuminate spire. Fine striæ passing over nearly obsolete ribs. The folds on the columella scarcely perceptible.



38. *CANCELLARIA LITTORINÆFORMIS* (pl. xcii. f. 5, 6, 9), *Sowerby*, *Conch. Illustr.* f. 14.

C. testâ rotundatâ, minutè granulatim decussatâ; spirâ obtusâ; suturâ nonnunquam sub-sulcatâ; aperturâ internè costatâ, columellâ triplicatâ, umbilicatâ: colore fusco.

A short species resembling a common Periwinkle. Minute lines crossing each other on the surface produce a fine granulation. In some varieties the spire is more produced and the whole are slightly depressed at the suture.

From Ceylon.

39. *CANCELLARIA VERRAUXII* (pl. xciii. f. 28), *Kiener*, pl. viii. f. 3. p. 17.

C. testâ ovali, costis rugosis longitudinalibus, et lineis elevatis spiralibus cancellatâ: spirâ acuminatâ, anfractibus angulatis; aperturâ internè striatâ, columellâ triplicatâ umbilicatâ, colore fusco rufescente.

The spire more produced than in *C. littorinæformis*, with the surface cancellated; of a light brown-colour.

Locality unknown.

40. *CANCELLARIA CANCELLATA* (pl. xciv. f. 51. *Lam.* E. M. f. 4).

C. testâ ventricosâ, costis longitudinalibus distantibus noduliferis et costis transversis undulatis acutiusculis cancellatâ; anfractibus rotundato-angulatis; aperturâ posticè et anticè canaliculatâ, internè costatâ; columellâ crassâ, anticè rugosâ, triplicatâ; umbilico magno: colore per fascias duas fuscas spirales disposito; aperturâ albâ.

A ventricose shell, cancellated by spiral rather angulated ribs, crossing and forming nodules upon distant longitudinal ones. The umbilicus is large.

Found in the River Gambia, and at Malaga in Spain.

41. *CANCELLARIA SIMILIS* (pl. xciv. f. 42), *Sowerby*, *Conch. Illustr.* no. 9.

C. testâ ventricosâ, costis longitudinalibus flexuosis, distantibus, et costis transversis acutis numerosis, sub-alternatis cancellatâ; aperturâ posticè et anticè canaliculatâ, internè costulatâ, umbilico magno; colore griseo, et albo fusco fasciato.

Like *C. cancellata*, but shorter, with the spiral ribs very much more numerous and having in some parts an interstitial rib.

From Senegal.



42. *CANCELLARIA PULCHRA* (pl. xciv. f. 41), *Sowerby*, Pro. Zool. Soc., 1832. p. 50.

*C. testâ ventricosâ, costis longitudinalibus angulatis, et costis spiralibus super costas longitudinales acutè angulatis, cancellatâ: anfractibus angulatis, ad angulum coronatis; aperturâ posticè et anticè canaliferâ, internè costatâ, margine dentato, columellâ crassâ, rugosâ, triplicatâ; umbilico magno, margine corrugato; colore ad angulum et in medium anfractuum fusco fasciato.*

Differing from *C. cancellata* in the angularity of the whorls and in the cross ribs being raised into angular points in passing over the longitudinal ones. The angle of the whorls is thus beautifully coronated and the edge of the aperture dentated.

Collected by Mr. Cuming at St. Elena, in West Columbia; sandy bottom.

43. *CANCELLARIA CHRYSOSTOMA* (pl. xciv. f. 39), *Sowerby*, Pro. Zool. Soc., p. 54. 1832.

*C. testâ ventricosâ, solidâ, spiraliter alternatim sulcatâ; costis longitudinalibus magnis, rugosis; spirâ brevi; anfractibus rotundato-angulatis; aperturâ internè costatâ, ad marginem crenulatâ; canali sub-producto; columellâ crassâ, rugosâ, validè triplicatâ; umbilico magno; colore griseo ad angulum anfractuum fusco unifasciato; aperturâ aurantiacâ.*

A ventricose shell with large umbilicus and thick rugose ribs; the whorls angulated, the aperture ribbed inside and of a brilliant orange colour.

Collected by Mr. Cuming, in sand (eight to ten fathoms water) at St. Elena and Panama.

44. *CANCELLARIA RUGOSA* (pl. xciv. f. 44), *Lamarck*, E. M. t. 375. f. 8.

*C. testâ ventricosâ, solidâ; spiraliter sulcatâ, costis longitudinalibus magnis, rugosis; spirâ acuminatâ, anfractibus obtusè angulatis; aperturâ obliquâ, internè costatâ: labio externo crenulato, crasso; canali brevi; columellâ crassâ rugosâ, triplicatâ; umbilico parvo, vix excavato: colore pallidissimè fulvo, rubro sparsim asperso, in medium anfractuum et ad angulum interruptim fasciato.*

Resembling *C. chrysostoma*, but with the umbilicus scarcely excavated, the spiral ribs not alternated, the angle of the whorls less elevated. It is of a light colour sprinkled with a reddish



colour with a band of colour between the ribs at the angle, and another below the centre of the ribs.

From China.

45. CANCELLARIA HÆMASTOMA (pl. xciv. f. 53, 54, 55), *Sowerby*, *Pro. Zool. Soc.*, 1832, p. 54.

C. testâ ventricosâ, solidâ, spiraliter sulcatâ, costis longitudinalibus magnis; anfractibus rotundato-angulatis; aperturâ brevi, internè costatâ, ad marginem crenulatâ; canali brevi; columellâ crassâ, rugosâ, triplicatâ; umbilico magno, sulcato; colore aperturæ aurantio, anfractuum, fusco fasciato et lineato: variat albo.

It is much less rugose than *C. chrysostoma*, and the aperture much shorter and more rounded.

From Gallapagos Islands, collected by Mr. Cuming from sandy mud, in eight to sixteen fathoms.

46. CANCELLARIA SCALARINA (pl. xevi. f. 87, 88), *Chemn.*, *Conch. t. iv. f. 1172, 1173.*

C. testâ ovali-oblongâ, turritâ; costis distantibus, crassis, subangulatis, crenulatis, ad angulum anfractuum in angulum duplicatum productis, interstitiis lævibus; spirâ productâ, anfractibus angulatis, ad suturam excavatis; aperturâ subtriangulari prope angulum posticum uniplicatâ, internè usque ad marginem costatâ, margine lævi; canali antico producto, vix excavato; columellâ subrugosâ, triplicatâ, umbilico sulcato; colore pallidissimè fulvo, fusco rubescente late bifasciato: variat albo.

Oblong oval, turreted; with distant thick ribs which are crenulated on the right side and produced at the angle of the whorls into a double angle, the interstices are smooth, the spire is produced, the whorls angular and hollow at the sutures; the aperture is partly triangular and grooved within; the umbilicus sulcated; the colour consists of two broad bands of reddish brown.

From the West Indies.

47. CANCELLARIA CRISPATA (pl. xevi. f. 89), *Sowerby*, *Conch. Illustr. f. 20.*

C. testâ ovali, turritâ; costis subreflexis, crenulatis, ad angulum anfractuum in angulum triplicatum productis; interstitiis leviter striatis; spirâ breviusculâ; anfractibus angulatis, ad suturam subexcavatis; aperturâ ovali, posticè angulatâ, prope angulum uniplicatâ, internè costatâ; margine crenato; canali antico excavato; columellâ rugosâ triplicatâ; umbilico sulcato; colore fusco nigricante, ad angulum et in medium anfractuum albo fasciato.



In this species the spire is shorter than in *C. scalarina*, the ribs are more numerous, they are slightly reflected, and at the angle of the whorl produced into three points. The colour consists of two dark brown bands, which are as distinct in the aperture as on the whorls.

Collected by Mr. Cuming at the Isle of Negroes, Philippines, in fine sand, five fathoms water.

48. *CANCELLARIA CRENIFERA* (pl. xvi. f. 84, 85, 86), *Sowerby*, *Conch. Illustr.* f. 29.

C. testâ obliquè ovali, turritâ; costis obliquis, distantibus, crenulatis, ad angulum anfractuum in angulum reflexum acutum productis; interstitiis obsoletè striatis; spirâ productâ, acuminatâ, anfractibus angulatis, ad suturam excavatis; aperturâ obliquè subtriangulari, propè angulum posticum uniplicatâ, internè costatâ, ad marginem denticulatâ, canali antico producto; columellâ lævi, triplicatâ; umbilico lævi, subtumido; colore fusco, vel fulvo tæniato.

Shorter and more oblique than *C. scalarina*, the ribs reflected at the angle of the whorls, and produced into a sharp point. The colour is either entirely brown or banded with brown, and ornamented by small lines across the ribs.

Collected at Manilla bay by Mr. Cuming, in sandy mud, at five fathoms.

49. *CANCELLARIA LAMELLOSA* (pl. xciv. f. 47. enlarged, pl. xvi. f. 106. nat. size), *Hinds*, *Voy. Sulphur, Mollusca*, p. 43.

C. "testâ ovatâ, acuminatâ, pallidâ, contabulatâ; anfractibus sex, ventricosis, lamellis numerosis confertis crenatis in loco costarum instructis; aperturâ trigonâ; labro incrassato, reflexo; columellâ plicis tribus parvis; umbilico magno; canali subnullo."

Of an obliquely oval form with laminated ribs in an oblique direction, crossed by raised lines, which near the suture of the whorls are elevated into a single point each. There is a band of dark brown seen between the ribs near the angle of each whorl. Fig. 47 is a representation twice the natural length of the specimens described by Mr. Hinds. Fig. 106 is a larger variety.

Indian Archipelago and Cape of Good Hope.

50. *CANCELLARIA OBLIQUATA* (pl. xvi. f. 82, 83), *Lamarck*, *Anim. sans vert.* *C. rosea*, *Beck*.

C. testâ obliquè ovali, ventricosâ; costis obliquis parvis, minutè crenulatis, numerosis, ad angulum anfractuum in angulum acutum



productis, ultimâ propè marginem in varicem elevatâ : interstitiis obsoletè striatis ; spirâ breviusculâ turritâ ; anfractibus angulatis, ad angulum coronatis, ad suturam excavatis ; aperturâ obliquè subtriangulari, propè angulum posticum uniplicatâ, internè costatâ, margine lævi, canali antico brevi ; umbilico sulcato ; colore griseo vel roseo, costis fusco fasciatim punctatis.

Shorter and more oblique than *C. scalarina* with the ribs smaller and produced at the angle into a single blunt point. The colour is grey or pale rose, with small spots upon the ribs.

Collected by Mr. Cuming at Manilla bay in sandy mud, eight fathoms water.

51. *CANCELLARIA ARTICULARIS* (pl. xcvi. f. 90, 91), *Sowerby*, *Conch. Illustr.* f. 32.

*C. testâ* ovali, subventricosâ ; costis numerosis, crenulatis, ad angulum anfractuum in angulum obtusum productis, ultimâ prope marginem in varicem elevatâ ; interstitiis obsoletè striatis ; spirâ turritâ, productâ ; anfractibus angulatis, ad suturam excavatis ; aperturâ posticè canaliferâ et uniplicatâ, internè lævi, propè marginem sulcatâ, margine lævi ; canali antico brevi ; umbilico sulcato ; colore roseo, costis fusco punctatis.

Like *C. obliquata*, but less oblique, with the spire much more produced and the ribs much more rounded. Of a rose colour, with brown spots on the ribs.

Collected at Ceylon by Dr. Sibbald.

52. *CANCELLARIA ELATA* (pl. xcvi. f. 94, 95), *Hinds*, *Voyage of the Sulphur*, *Mollusca*, p. 42. pl. xii. f. 3, 4.

"*C. testâ* ovatâ elongatâ, acuminatâ, anfractibus septenis, costatis, supernè angulatis, lineis elevatis decussatis ; suturâ profundâ ; aperturâ ovali ; peritremate supernè disjuncto ; labro intus sulcato ; columellâ triplicatâ ; plicâ inferiore maximâ ; umbilico parvo, sub-occulto ; canali inflexo."

Found at Panama, in thirty fathoms water.

53. *CANCELLARIA FUNICULATA* (pl. xcvi. f. 96, 97), *Hinds*, *Voy. Sul.* p. 43. pl. xii. f. 5, 6.

"*C. testâ* ovali, elongatâ ; anfractibus senis, costatis, supernè subangulatis ; costis subdistantibus, elevatis, rotundatis, nodulosis, lineis elevatis decussatis ; suturâ profundâ ; labro intus sulcato ; columellâ plicis tribus parvis ; umbilico marginato : canali sub-nullo."



From the Gulf of Magdalena, California. Seven fathoms, sandy mud.

54. CANCELLARIA TEXTILIS (pl. xciii. f. 34), *Kiener*, Sp. Coq. viv. Gen. Cancellaria. p. 10. pl. vii. f. 1.

*C. testâ* turritâ, obliquè ovali, costis tuberculatis subdistantibus; spirâ productâ; anfractibus angulatis, ad suturam excavatis: aperturâ posticè canaliferâ et uniplicatâ, internè costatâ; columellâ triplicatâ; umbilico parvo: colore fusco, tuberculis costarum albis.

More oblique and with fewer ribs than *C. scalata*. The colour is dark brown, with the tubercles of the ribs white.

From the Molluccas.

55. CANCELLARIA SCALATA (pl. xciii. f. 26), *Sowerby*, Conch. Illustr. f. 27.

*C. testâ* turritâ; costis numerosis, noduliferis; spirâ productâ; anfractibus angulatis, ad suturam excavatis; aperturâ posticè canaliferâ et uniplicatâ, internè costatâ; columellâ triplicatâ; umbilico parvo; colore fulvo, aperturâ albâ.

The ribs are more distinctly tuberculated than in *C. articularis*, and the umbilicus is much smaller. The colour is pale fawn, varying to pink in the upper whorls.

Collected by Dr. Sibbald on the sands at Ceylon.

56. CANCELLARIA CONTABULATA (pl. xciii. f. 19, 23), *Sowerby*, Conch. Illustr. f. 28. *C. pusilla*, *Sowerby*, Conch. Illustr. f. 34. inclusa.

*C. testâ* turritâ ventricosâ, costis numerosis, noduliferis, spirâ breviusculâ, anfractibus contabulatis; aperturâ magnâ, posticè angulatâ, internè costatâ; umbilico mediocri columellâ triplicatâ; colore pallidè stramineâ, aperturâ albâ.

Like *C. textis* and *C. scalata* in general characters, but the upper part of the whorls presenting a broad, flat surface. Of a pale straw colour, with the aperture white and undefined, orange spots on the angle of the whorls. *C. pusilla*, figured in Conch. Illustr., is but a young specimen of this.

Collected by Dr. Sibbald on the sands at Ceylon.

57. CANCELLARIA FOVEOLATA (pl. xciii. f. 30, 31), *Sowerby*, Junr., Pro. Zool. Soc. 1848.

*C. testâ* oblongo-ovali, turritâ, lævigatâ; obsoletè costatâ;



spirâ productâ; anfractibus angulatis, ad suturam excavatis, ad angulum sub-coronatis: aperturâ triangulari, lævi; columellâ triplicatâ; umbilico medioeri; colore fusco, vel fulvo tæniato.

From the sands at Algoa bay. Turreted, smooth, with distant and very obsolete ribs, the whorls of the spire are very deeply excavated near the suture. Of the two specimens collected by Mr. Cuming, one is entirely brown, and the other is beautifully lineated.

58. *CANCELLARIA COSTIFERA* (pl. xcv. f. 65, 66, 71), *Sowerby*, *Conch. Illustr.* f. 31.

*C.* testâ turrîtâ, oblongo-ovali; costis distantibus, subcrenulatis, validis, ad angulum anfractuum elevatis: spirâ acuminatâ, anfractibus acutè angulatis; aperturâ internè obsolete costatâ; posticè sub-angulatâ, colore pallidè fulvo, vel interstitiis roseo, vel fusco.

Taken in nine fathoms water, coarse sand, at the Island of Burea; by Mr. Cuming. The specimens figured in the *Conch. Illustr.*, were worn, dead shells.

59. *CANCELLARIA BICOLOR* (pl. xciv. f. 49, 50; pl. xcv. f. 69), *Hinds*, *Voy. Sulph. Mollusca.* p. 43. pl. 12. f. 13. 14.

*C.* testâ ventricosâ, turrîtâ; spirâ brevi; anfractibus contabulatis; costis distantibus, crassis, crenulatis; interstitiis lævibus aperturâ subtriangulari, posticè uniplicatâ, internè costatâ crassâ; canali producto, umbilico triangulari ad marginem magno lævi; colore pallidissimè fulvo, fusco latè fasciato; variat roseo.

A ventricose, angular species, with a flat area on the upper part of each whorl, a large umbilicus and triangular aperture. Nearly white, with a broad brown band in the centre; which, in one variety, is spread nearly all over the whorl. Another variety is of a pink colour.

From Catbalonga and the Island of Samoa.

60. *CANCELLARIA COSTATA* (pl. xcv. f. 60, 61. pl. xcvi. f. 103), *Gray?* *Conch. Illustr.* f. 42. *C. rigida*, *Sowerby*, *Zool. Pro.* p. 53, inclusa.

*C.* testâ ventricosâ, turrîtâ rugosâ spirâ brevi, anfractibus contabulatis; costis distantibus, crassis, rugosis; ad suturam laminatis; aperturâ subtriangulari, posticè uniplicato, internè costatâ, margine crassâ; canali producto; umbilico magno, sulcato; colore aurantio, vel fusco nigrescente.

This species resembles *C. bicolor*, but is rugose in every part. The



colour of one variety is orange, that of the other is nearly black. I do not think *C. rigida* of Sowerby is distinct.

From the sands in the river Gambia.

61. *CANCELLARIA BULLATA* (pl. xciv. f. 56), *Sowerby*, Pro. Zool. Soc. 1832, p. 51.

*C. testâ ventricosâ, rugosâ; anfractibus angulatis, ad angulum tuberculatis, ad suturam excavatis; umbilico magno; aperturâ magnâ, lævi; columellâ biplicatâ, colore cinereo, aperturâ albâ.*

The most ventricose of all the species, of a cinereous brown colour, tuberculated at the edge of the whorls.

Found in the gulf of Nocoya.

62. *CANCELLARIA TUBERCULATA* (pl. xciv. f. 52), *Sowerby*, Pro. Zool. Soc. 1832. p. 51.

*C. testâ ventricosâ, rugosâ; anfractibus angulatis, ad angulum et in seriebus tribus validè tuberculatis, ad suturam excavatis; aperturâ magnâ lævi, ad marginem undulatâ, columellâ biplicatâ; umbilico magno, striato; colore nullo.*

It is like *C. Bullata*, but is rugose and strongly tuberculated. It is a white shell.

From Iquiqui, in sandy mud, six to twelve fathoms water.

63. *CANCELLARIA BREVIS* (pl. xciii. f. 21), *Sowerby*, Pro. Zool. Soc. 1832. p. 52.

*C. testâ ventricosâ, rugosâ, anfractibus angulatis, ad suturam excavatis; costis crassis, tuberculatis, umbilico magno, crenulato, aperturâ triangulari; columellâ biplicatâ; colore griseo, fusco maculato.*

From Puerto Portrero, and St. Elena. Collected by Mr. Cuming, in sandy mud, six to twelve fathoms water.

64. *CANCELLARIA GONIOSTOMA* (pl. xciv. f. 40.), *Sowerby*, Pro. Zool. Soc. 1832. p. 51.

*C. testâ trigonâ, lævi, anfractibus contabulatis; costis crassis, raris, tuberculatis, præcipuè ad angulum anfractuum; umbilico maximo; aperturâ triangulari, margine crenato; columellâ bipliatâ: colore anticè pallidè fulvo, posticè castaneo, costis et peritremate fusco punctatis.*

At Conchagua, in sandy mud, eight fathoms, by Mr. Cuming.

65. *CANCELLARIA TRIGONOSTOMA* (pl. xciv. f. 45, 46), *Sowerby*, Conch. Illustr. f. 44.



*C. testâ turritâ; anfractibus trigonis, ad basin angustatis, ad angulum coronatis, in medio sulcato; umbilico maximo, margine crenulato; aperturâ trigonâ, columellâ triplicatâ; colore pallidè violaceo.*

From Ceylon, widely different from all other species.

66. *CANCELLARIA SEMIDISJUNCTA* (pl. xcv. f. 62, 63), *Sowerby, Junr. Pro. Zool Soc. 1848.*

*C. testâ ovali ventricosâ, turritâ, spiraliter sulcatâ; anfractibus angulatis, ad suturam profundè disjunctis, ultimâ disjunctâ: umbilico maximo, costato; aperturâ triangulari; columellâ triplicatâ, colore fulvo, fusco longitudinaliter fasciato.*

Cagayan, island of Mindinao, in twenty-five fathoms, sandy mud, by Mr. Cuming.

67. *CANCELLARIA ANTIQUATA* (pl. xciii. f. 27), *Hinds, Zoology of the Sulphur*, p. 43. pl. xii. f. 17, 18.

*Testâ ovatâ, acuminatâ, contabulatâ, albidâ; anfractibus septenis, planulatis, costatis, transversim striatis; costis acutis, supernè spinis cavis desinentibus; aperturâ trigonâ; labro reflexo; columellâ plicis tribus minimis; umbilico maximo.*

A most elegant little species with a trigonal aperture, large umbilicus; and the whorls separated from each other by a series of pits.

From the shores of New Guinea; taken in coarse sand, twenty-two fathoms.

68. *CANCELLARIA ACUMINATA* (pl. xcii. f. 1), *Sowerby, Pro. Zool. Soc. 1832. p. 53.*

*C. testâ ovali, lævi, spiraliter obsolete striatâ; spirâ sub-elongatâ, acuminatâ; anfractibus rotundato-angulatis; aperturâ internè plicatâ, columellâ triplicatâ, posteriori magnâ: labio externo ad canalem emarginato. Colore fasciatim fulvo; aperturâ albâ.*

This shell, dredged by Mr. Cuming in sandy mud, at a depth of twelve fathoms at Guacomayo in Central America, is like *C. reticulata* in general form and character, but the ribs and sides are obsolete, and the spire is much longer in proportion to the aperture.



## CANCELLARIA.

## LIST OF FIGURES IN PLATES XCII. TO XCVI.

*(The Figure after each name is the number of the Species.)*

Fig.		Fig.	
1.	<i>C. acuminata</i> , Sp. 68.	34.	<i>C. textilis</i> , Sp. 54.
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3.	— <i>decussata</i> , 24.	36.	— <i>elegans</i> , 25.
4.	— <i>solida</i> , 5.	37.	— <i>obesa</i> , 8.
5, 6.	— <i>Littorinæformis</i> , 38.	38.	— <i>Asperella</i> , 26.
7.	— <i>indentata</i> , 18.	39.	— <i>chrysostoma</i> , 43.
8.	— <i>candida</i> , 10.	40.	— <i>goniostoma</i> , 64.
9.	— <i>Littorinæformis</i> , 38.	41.	— <i>pulchra</i> , 42.
10, 11.	— <i>Buccinoides</i> , 17.	42.	— <i>similis</i> , 41.
12.	— <i>undulata</i> , 15.	43.	— <i>albida</i> , 12.
13.	— <i>Clavatulæ</i> , 20.	44.	— <i>rugosa</i> , 44.
14.	— <i>gemmulata</i> , 23.	45, 46.	— <i>trigonostoma</i> , 80.
15.	— <i>Cassidiformis</i> , 1.	47.	— <i>lamellosa</i> , 49.
16.	— <i>lævigata</i> , 32.	48.	— <i>urceolata</i> , 13.
17.	— <i>reticulata</i> , 9.	49, 50.	— <i>bicolor</i> , 59.
18.	— <i>excavata</i> , 35.	51.	— <i>cancellata</i> , 40.
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20.	— <i>Cumingiana</i> , 4.	53 to 55.	— <i>hæmastoma</i> , 45.
21.	— <i>brevis</i> , 63.	56.	— <i>bullata</i> , 61.
22.	— <i>spirata</i> , 34.	57.	— <i>nodulifera</i> , 3.
23.	— <i>contabulata</i> , 56.	58, 59.	— <i>granosa</i> , 15.
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28.	— <i>Verrauxii</i> , 32.	67.	— <i>Clavatulæ</i> , 20.
29.	— <i>Spengleriana</i> , 2.	68, 70.	— <i>Purpuriformis</i> , 30.
30, 31.	— <i>foveolata</i> , 57.	69.	— <i>bicolor</i> , 59.
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33.	— <i>piscatorum</i> , 22.	72, 73.	— <i>Australis</i> , 11.



Fig.

74. *C. Asperella*, Sp. 26.  
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 79. — *undulata*, 16.  
 80. — *indentata*, 18.  
 81. — *lævigata*, 32.  
 82, 83. — *obliquata*, 50.  
 84 to 86. — *crenifera*, 48.  
 87, 88. — *scalarina*, 46.  
 89. — *crispata*, 47.

Fig.

- 90, 91. *C. articularis*, Sp. 51.  
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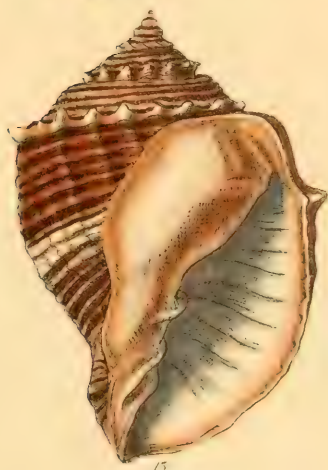
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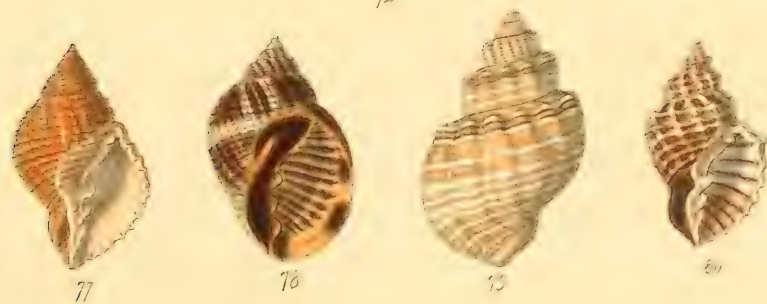


























## MONOGRAPH OF THE GENUS

## NAUTILUS.

*Char. Gen.* Molluscum cephalopodum. Testa univalvis, libera, suborbicularis, convoluta, concamerata; anfractibus contiguis; septis transversis, extûs concavis, siphunculo perforato, marginibus integris: aperturâ amplissimâ.

By the common consent of the more modern naturalists, this genus retains the name of NAUTILUS, although it is not very nearly related to the Nautilus of Pliny, which is called *Argonauta* by the moderns, to which the commonly received and elegantly embodied fiction

“Learn of the little Nautilus to sail”

of right belongs, and has no reference whatever to the present genus.

Few are the recent species of Nautilus as yet known, five being the utmost, of which one may be only a sexual variation of the common *N. Pompilius*, and one other has only very lately been discovered. Of fossil species there are many, belonging to most of the geological series, from the carboniferous limestone upwards. We believe that all the fossil species are distinct from the recent, more particularly we are convinced that this is the case with the species found at Dax, whose siphon is so very remarkably disproportionate.\*

1. NAUTILUS POMPILIUS (pl. xcvii. f. 1., and pl. xcvi. f. 6),  
*Linn.*

Testa suborbicularis, subdepressa, pallescens, posticè ferrugineo radiatim multistrigata, strigis ad centrum continuis, supra dorsum numerosioribus, contiguis; aperturâ oblongo-cordatâ, angustiori; umbilico clauso.

This, which is by far the commonest species, is somewhat

\* In this opinion we are supported by M. Basterot, who has pointed out the distinguishing characters, and names the fossil, *N. Atari*.



orbicular in its general form, but not sphaeroidal, being considerably depressed; it is generally of a pale colour, and nearly white, though sometimes covered with a rusty epidermis; the posterior part is covered with radiating, irregular, reddish-brown stripes; which continue to the centre, and are more numerous and close-set on the dorsal part; in front it is destitute of stripes. The aperture is of an oblong heart-shape, and rather narrow, and the umbilicus is completely covered.

2. NAUTILUS AMBIGUUS (pl. xcvii. f. 2), *nobis*.

Testa suborbicularis, subventricosa, pallescens, posticè ferrugineo radiatim multistrigata, strigis ad centrum discontinuis, supra dorsum paucioribus, subcontiguus; aperturâ oblongo-cordatâ, latâ; umbilico clauso.

This may possibly be only a variety of the foregoing; there are, however, several differences which appear to be constant. It is nearly the same in general form, but not so much depressed, its aperture is oblong-cordate, but wider than that of *N. Pompilius*: it is usually nearly white, with reddish-brown radiating stripes, which are rather close-set on the dorsal part, but do not continue to the centre; the umbilicus is entirely covered.

3. NAUTILUS UMBILICATUS (pl. xcviii. f. 7), *Lister*, (not Linn.) *N. scrobiculatus*, *Solr. MS. Dillwyn. Descr. Catal.* p. 33.

Testa suborbicularis, subdepressa, utrinque latè umbilicata, marginibus umbilicorum rotundato-angulatis; lateribus subrugosis; pallescens, posticè radiatim ferrugineo strigata, strigis ad dorsum contiguus, versus centrum discontinuis, umbilico ferrugineo, radiatim substrigato.

This species is entitled to the name of *umbilicatus*, because that name was given to it by *Lister*, and *Linné's umbilicatus* is not a *Nautilus*, but one of the minute *Foraminifera*. We have, therefore, dropped *Solander's* manuscript name, afterwards published by *Dillwyn*, of *scrobiculatus*. This is one of three umbilicated species in which the outer edge of the umbilicus forms a rounded angle; the umbilicus is also larger than in the other species. The streaks of colour, which are close-set on the dorsum, do not continue on the sides towards the umbilicus.

4. NAUTILUS MACROMPHALUS (pl. xcviii. f. 4, 5), *nobis*.

Testa suborbicularis, subventricosa, utrinque umbilicata, marginibus umbilicorum rotundatis; pallescens, posticè radiatim fer-



rugineo strigata, strigis ad umbilicum continuis; margine interno umbilico albicante, externo ferruginea.

In form this species most nearly resembles *N. ambiguus*, though in its colouring it is like *N. Pompilius*. Its large umbilicus, with a rounded margin, at once distinguishes it from both.

5. NAUTILUS STENOMPHALUS (pl. xcvi. f. 3), *nobis*.

Testa suborbicularis, subventricosa, utrinque umbilicata, umbilico angusto, margine umbilici subinterno leviter angulato; pallescens, posticè radiatim ferrugineo strigata, strigis ad dorsum contiguis, ad centrum discontinuis; apertura rotundato-cordata.

Nearly similar in shape to *N. macromphalus*, but distinguished by the smallness of its umbilicus, the subinternal margin of which is slightly angular: in colouring it is like *N. ambiguus*.

## NAUTILUS.

### EXPLANATION OF PLATES XCVII. AND XCVIII.

Fig.

1. *N. pompilius*, sp. 1.
2. . . *ambiguus*, 2.
3. . . *stenomphalus*, 5.
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6. . . *pompilius*, 1.
7. . . *umbilicatus*, 3.















1717



1718







## MONOGRAPH OF THE GENUS

## OVULUM.

*Char. Gen.* Molluscum Tracheliopodum marinum. Testa convoluta, ovalis vel fusiformis, spirâ cælatâ; aperturâ bicanaliferâ, columellâ lævi. Operculum nullum.

The spire is enclosed by the last whorl. The aperture has a canal at each end. The columella is smooth. The mantle of the animal covers a considerable portion of the shell.

OVULUM OVUM (pl. xcix. f. 1, 2, 3), *Bulla* Ovum, *Auctorum*. Ovula oviformis, *Lam. Anim. s. vert. vii.* p. 366.

O. testâ ovali, politâ, albâ; canalibus brevibus, ad extremitates emarginatis: aperturâ anticè sub-apertâ, sanguineâ; labio externo intùs crenulato, anticè breviusculo, labio interno posticè tumido, anticè subtortuoso, emarginato, ad canalem posticum angustato sub-spirali, ad canalem anticum crasso rectiusculo.

Oval, polished, white, with short ends; the aperture widened at the lower part, inside of a brownish red colour; outer lip crenulated within, shortened at the lower end; inner lip with a rounded elevation on the upper part of the body, whorl, at the posterior canal narrowed, and then sub-spiral; at the anterior canal thickened and rather straight.

Found in the Indian Ocean, and in the Society and Philippine Islands.

2. OVULUM ANGULOSUM (pl. xcix. f. 4. 5), *Lam. Anim. s. vert. vii.* p. 367. O. costellata, *Lam. Ann. du Mus. xvi.* p. 110. *Bulla* imperialis, *Dillwyn*.

O. testâ ventricosâ, subangulatâ, lævi, albâ; dorso tumido, anguloso; obscurè costellato; canalibus brevibus, anticâ ad extremitatem emarginatâ; aperturâ angustâ, intùs violaceâ; labio ex-



terno crasso, intùs crenulato; anticè sub-angustato; ad canalem posticum recedente, ad canalem anticum rectiusculo.

Oval in general form, angular at the back, and otherwise differing from *O. ovum*, in the retrocession of the inner lip at the posterior canal, and in the delicate violet colour of the mouth.

From the Friendly Islands, *Humph. Zanzebar, Cuming.*

3. OVULUM CONCINNUM (pl. ci. f. 86, 87), *Sowerby, junr. Moll. Voy. Samarang.*

*O. testâ parvâ, ventricosâ, angulatâ, albâ vel roseâ, minutissimè striatâ; dorso tumido, anguloso; canalibus brevibus obtusis, integris; aperturâ angustâ; labio externo intùs denticulato, in medio anguloso, labio interno posticè tumorem angulosum crenulatum ferente, internè longitudinaliter sulcato, anticè angustato, ad canalem posticum recedente, ad canalem anticum prominente, angustato, sub-uniplicato.*

A miniature resemblance of *O. angulosum*, more angular, minutely striated, with a groove along the inner lip, and an elevated, angular tumidity on the body whorl near the angle. It is white, or pale rose.

From the Island of Capul, Philippines, by Mr. Cuming; and off Loo-Choo, by Sir E. Belcher, in the Samarang.

4. OVULUM LACTEUM (pl. ci. f. 67 to 69), *Lamarck, Anim. s. vert. vii. p. 368.*

*O. testâ ovatâ, lævi, albâ; dorso ventricosus, sub-angulato, obscurè costellato; canalibus brevissimis, obtusis, vix emarginatis, aperturâ angustâ; labio externo complanato, intùs dentato; labio interno intùs longitudinaliter concavo, posticè ad canalem anguloso, anticè prope canalem angustato, ad canalem sub-uniplicato.*

Resembling *O. verrucosum* in general form, but has not the circular "warts" which distinguish that species.

From the Pacific Ocean, Spec. Conch. From Masbatè, Zanzebar, Capul, and Philippines, *Cuming.*

5. OVULUM VERRUCOSUM (pl. ci. f. 78, 79), *Lamarck. Anim. s. vert. vii. 367.*

*O. testâ ventricosâ ovali-subangulatâ, lævi, albâ; dorso tumido, leviter striato, in medio angulato, anticè et posticè prope extremitates verrucâ circulari instructâ; canalibus brevissimis, ad extremitates validè emarginatis, roseis; labio externo in medio lato, angulato intùs dentato, ad extremitates sub-productis; labio interno breviusculo, sub-complanato intùs compresso, anticè angustato.*



Oval in general form, angular at the back, with a circular small swelling at each extremity, encircled by a cicatrix.

Found in the Indian Ocean, and Islands Guimaras, Philippines.

6. OVULUM BREVE (pl. ci. f. 70, 71), *Sowerby*, Sp. Conch. No. 1. p. 5.

O. testâ ovali, albâ, lævi, canalibus brevibus, integris, aperturâ angustâ, labio externo intus crenulato, labio interno margine elevato, posticè tumido, anticè ad canalem uniplicato.

Resembling *O. lacteum* in general form, but with the margin of the inner lip raised into a flexuous keel along the front of the shell.

Locality unknown.

7. OVULUM MARGARITA (pl. ci. f. 93, 94). "*Liceum margarita*," *Humph.* ined.

O. testâ sub-globosâ, subpyriformi, albâ; dorso obscurè sub-costellatâ, canalibus brevibus, integris; aperturâ angustâ, labio externo crasso lævi, intus crenulato; posticè labium internum superante, in medio lato; labio interno lævi, posticè tumorem crassum subrotundatum ferente, ad canalem recedente, anticè tumido ad canalem uniplicato, intus excavato.

A smooth, rather globose white shell, with a rather thick tumidity on the body whorl.

From Puerto Galero and Ticao, Philippines, *Cuming*. Friendly Islands, *Humphry*.

8. OVULUM BULLA (pl. ci. f. 82, 83.) *Sowerby*, *junr.* Moll. Voy. Samarang, p. 21. pl. vi. f. 5. *a*, *b*.

O. testâ ventricosâ, subcylindraceâ, lævi, anticè sub-acuminatâ; canalibus brevissimis integris; labio externo in medio sub-rotundo, intus crenulato; labio interno posticè tumorem parvum ferente, ad canalem angustato, uniplicato, intus paululum excavato.

Differing from *O. margarita* and *O. punctatum* in form, being more cylindrical and very narrow at the anterior extremity.

Brought in the Samarang, from the China Seas.

9. OVULUM UMBILICATUM (pl. ci. f. 88, 89), *Sowerby*, *junr.*, Pro. Zool. Soc., 1848.

O. testâ globosâ sub-pyriformi, albâ, roseo pallidè tincto, dorso



ad extremitates rubro lineato, ad terminum posticum umbilicato; aperturâ sub-apertâ; labio externo angustato, intûs crenulato, posticè labium internum superante; labio interno posticè tumorem elevatum denticulatum ferente, ad canalem lineari, anticè bi-costellato, ad canalem uniplicato.

Agreeing with *O. margarita* in general appearance, but the outer lip is thinner, the mouth wider, the upper callosity elevated and denticulated, and there is a small umbilicus behind the posterior termination of the outer lip.

From Ticao, Philippines; *Cuming*.

10. OVULUM MARGINATUM (pl. xcix. f. 9, 10), *Sowerby*, Sp. Conch. No. 1. p. 5.

O. testâ ventricosâ, sub-pyriformi, albâ, lineâ aurantiâ ad marginem cinctâ, dorso costellato, extremitatibus obtusis; aperturâ in medio sub-contractâ, labio externo intûs crenulato, in medio prominente; labio externo lævi, intûs excavato, posticè tumorem obliquum, crenulatum ferente, ad canalem emarginato, anticè tumido, ad canalem uniplicato.

Of an oval ventricose form, slightly narrowed at the lower end, the outer lip prominent in the centre, the enamel of the inner lip and the dorsal edge of the margin defined by a strong orange line of colour.

Locality unknown.

11. OVULUM PYRIFORME (pl. ci. f. 72, 73), *Sowerby*, Sp. Conch. No. 1. p. 5.

O. testâ ventricosâ pyriformi, striatâ, fulvo nubeculatâ; canalibus sub-productis, antico subreflexo, emarginato; aperturâ anticè sub-apertâ; labio externo lato, intûs crenulato, ad canalem posticum planulato; labio interno expanso, intûs sub-excavato, posticè angulosim tumido, ad angulum nullo, anticè tortuoso, tumido.

The most pyriform of all the species. The posterior part of the outer lip is flattened at its juncture with the inner. Colour, clouded, yellowish-brown.

From New South Wales.

12. OVULUM ADRIATICUM (xcix. f. 13, 14), *Sowerby*, Sp. Conch. No. 1. p. 4.

O. testâ ovali, ventricosâ sub-pyriformi, albâ, pellucidâ, dorso obscure sub-costellato; canalibus brevibus, integris; aperturâ apertâ; labio externo angusto, intûs crenulato, labio interno lævi,



posticè tumorem obliquum ferente, ad canalem tenui, tortuoso, anticè sub-tortuoso intùs sub-excavato, ad canalem acuminato.

Oval, or rather pear-shaped, ventricose, thin, white; the aperture not very narrow, the canals slightly produced, tumidity of the body whorl oblique.

From the Adriatic Sea.

13. OVULUM CARNEUM (pl. ci. f. 74 to 77), *Lamarck*, Anim. s. vert. vii. p. 368.

O. testâ ovali, ventricosâ, rubro flavescente; dorso prope extremitates minutissimè striato; canalibus brevibus, integris; aperturâ angustâ; labio externo intùs crenulato, ad extremitates angustato; labio interno lævi, expanso, posticè tumido, ad canalem angustato recedente, anticè angusto, intùs excavato, ad canalem pœnè uniplicato.

Resembling *O. adriaticum*, but more solid, rather more angular; of a beautiful red colour, softened into flesh-tint, slightly striated near the extremities.

From the Mediterranean. The white variety was brought by Mr. Cuning from Ticao, Philippines.

14. OVULUM NUBECULATUM (pl. ci. f. 80, 81), *Sowerby*, *junr.* Moll. Samarang, pl. vi. f. 12. *a, b, c.*

O. testâ ventricosâ, sub-pyriformi, pallidè rubro vel fulvo nubeculato; dorso obscure costellato; canalibus brevibus, vix emarginatis; aperturâ angustâ, labio externo intùs crenulato, prope medium sub-complanato; labio interno tumorem elevatum crassum ferente, ad canalem breve et recedente, anticè tumido, intùs excavato, ad canalem sub-uniplicato.

More pyriform (that is, with the most ventricose part higher) than *O. carneum*, the posterior canal is shorter, and the posterior tumidity more elevated. The colour consists of pale or strong fulvous red, arranged in three cloudy bands.

Taken near the Island of Basilan.

16. OVULUM PUNCTATUM (pl. ci. f. 90 to 92), *Duclos*, *Guerin*. Mag. Zool. 1828.

O. testâ ventricosâ, sub-pyriformi, pallidè rosçâ; dorso punctis vel maculis sex rubris ornato, ad marginem rubro pallidè lineato; aperturâ angustâ, labio externo crasso, lævi, intùs crenulato, posticè labium internum superante, sub-producto; labio interno lævi, posticè tumorem elevatum, sub-angulatum, crenulatum



ferente, ad canalem recedente ; anticè angustato, ad canalem sub-uniplicato, intùs excavato.

This exquisite species resembles *O. margaritum* in form, but the callosity on the body whorl is more angular and crenulated. There are six spots arranged in two rows on the back, which, in one variety, are spread into wavy patches of red.

Capt. Belcher brought specimens in the Samarang, from the China seas ; and Mr. Cuming collected others at Capul and Batanzas, Philippines.

16. OVULUM STRIATULUM (pl. ci. f. 84, 85), *Sowerby*, Sp. Conch. 1. p. 7.

O. testâ parvâ, oblongâ, angulosâ, minutè striatâ, albâ, vél rosâ ad extremitates rubrâ, dorso tumido, subangulato ; canalibus sub-productis, paululùm ad extremitates emarginatis ; aperturâ angustâ ; labio externo sub-complanato, dentato ; labio interno posticè tumorem triangularem prominentem crenulatum ferente, internè longitudinaliter sulcato, anticè tumido, angustato, ad canalem posticum recedente, ad canalem anticum sub-uniplicato.

Of an angular, oblong form, minutely striated at the back, the extremities produced, and a triangular tumidity on the posterior part of the body whorl, the teeth of the outer lip reach nearly to the outer margin. The white shell was brought by the Samarang. The small rose-coloured specimen with red tips, was brought by Mr. Cuming, from Batanzas, Philippines ; and by Lieut. Belcher, off Loo-Choo.

17. OVULUM BULLATUM (pl. ci. f. 95, 96), *Sowerby*, *junr.*; Moll. Samarang, pl. vi. f. 13. *a*, *b*.

O. testâ ovali-oblongâ, minutè striatâ, roseo tinctâ, ad extremitates fusco lineatâ ; dorso ad marginem sulcato ; canalibus sub-productis, integris ; aperturâ angustâ, labio externo intùs crenato, complanato ; labio interno tumido, lævi, intùs depresso, sub-sulcato, posticè bullulam prominentem crenulatam ferente, ad canalem sub-tortuoso, anticè sub-excavato, ad canalem uniplicato.

Of an oval form, striated at the back. The inner lip of the posterior canal slightly tortuous, the outer lip flattened, slanting inwards and crenulated, the body whorl in front near the posterior angle having a raised, rounded, prominent pustule.

By the Samarang. Caramata Passage, near Sincapore. Ten fathoms.



18. OVULUM DORSUOSUM (pl. ci. f. 97, 98), *Hinds*, Moll. Voy. Sulphur, p. 47. pl. xvi. f. 3, 4.

"O testâ elongato-ovatâ, minutissimè striatâ, utrinque sub-acuminatâ; dorso supra medium rotundato, infernè attenuato, labro anticè planulato, sulcato; columellâ infernè sub-excavatâ, intùs plicâ longitudinali munitâ."

In some degree resembling *O. striatulum*, but the thick part is higher and more rounded; the outer edge of the outer lip, and the callosity and edge of the canal are crenulated.

Found at the straits of Malacca, in mud, at the depth of nine fathoms.

19. OVULUM HORDACEUM (pl. ci. f. 110 to 112), *Lamarck*, Anim. s. vert. vii. p. 369.

O. testâ oblongâ, sub-cylindraceâ, striatâ flavidâ rubescente, vel rubrâ supra medium angulatâ, ad angulum crenulatum, ad extremitates angustatâ; labio externo posticè angulato, extùs crenulato, intùs minutè denticulato, ad canales emarginato, labio interno posticè tumido, crenulato, ad canalem acuminato, anticè intùs longitudinaliter uniplicato, ad canalem acuminato.

A rather cylindrical, striated shell, with a carinated angle above the centre; the outer lip is crenulated at the outer edge, as well as on the flat, inner surface.

From the East Indian Archipelago.

20. OVULUM COARCTATUM (pl. ci. f. 108, 109), *Sowerby*, *junr.*, Moll. Voy. Samarang. pl. vi. f. 2. *a*, *b*.

O. testâ elongatâ, sub-cylindraceâ, fulvâ, striatâ, supra medium gibbosâ, ad extremitates coarctatâ, labio externo paululùm incrassato, lævi, anticè sub-angulato; labio interno intùs sub-depresso, ad extremitates acuminato.

This shell resembles *O. hordaceum* in some degree, but is not angular, and has the outer lip smooth. It may, however, very possibly be a young shell.

Brought in the Samarang from the Straits of Sunda, near Java.

21. OVULUM DENTATUM (pl. ci. f. 101, 102), *Sowerby*, *junr.*, Moll. Samarang. pl. vi. f. 4. *a*, *b*.

O. testâ parvâ, oblongâ, sub-angulatâ, minutè striatâ; pallidè roseâ, fusco rubescente variegatâ; canalibus sub-productis, emarginatis; aperturâ angustatâ; labio externo breviusculo, compla-



nato, intùs et ad extremitates usque ad marginem dentato; labio interno lævi, intùs longitudinaliter sulcato, posticè tumorem elevatum crenulatum ferente, ad canalem recedente; anticè angustato, tumido; ad canalem sub-uniplicato.

Not so angular as *O. striatulum*, and with the teeth of the outer lip forming denticulations at the outer margin. The colour is pale rose, strengthened at the margin and extremities, with two longitudinal waved bands at the back.

Brought in the Samarang. Caramata Passage.

22. OVULUM FORMOSUM (pl. ci. f. 99, 100), *Sowerby, junr.*, Moll. Samarang, pl. vi. f. 6. *a, b.*

*O. testâ elongatâ, in medio sub-angulatâ, violaceâ, ad extremitates fuscâ, lineis puncturatis cinctâ; canalibus brevibus, validè emarginatis; aperturâ angustâ; labio externo in medio sub-angulato, denticulato, ad extremitates brevî, posticè ad marginem externum dentato; labio interno lævi, longitudinaliter sulcato, posticè tumido, ad canalem angusto, rectiusculo, anticè ad canalem rectiusculo.*

Of an elongate angular form, and remarkably bright violet colour with yellow tips; the spiral striæ regular and beautifully punctured, the extremities rather produced, the outer lip short at the ends, and denticulated; the denticulations reaching the outer margin at the posterior extremity.

Brought in the Samarang. East coast of Borneo.

23. OVULUM FRUMENTUM (pl. ci. f. 103, 104), *Sowerby*, Sp. Conch. No. 1. p. 7.

“*O. testâ oblongâ, dorso transversim gibboso, rubescente, transversim albido-unifasciatâ; labio externo margine planulato intùs denticulato; labio columellari supernè calloso, infrâ depresso; extremitatibus sub-acuminatis obtusiusculis.*”

The only specimen of this shell which I have seen is the one in the British Museum; it is of a crimson colour, with a white band in the centre of the back. It is not unlike *O. Seminulum*; but the ends are narrower, and the outer lip is denticulated.

Locality unknown.

24. OVULUM TRITICEUM (pl. c. f. 20, 21), *Lamarck*, Anim. s. vert. vii. p. 361.

*O. testâ longitudinaliter ovali, lævi, rubrâ; canalibus breviusculis; aperturâ apertâ, labio externo intùs crenulato, anticè sub-*



emarginato ; labro interno posticè tumorem rotundatum, elevatum, ferente, ad canalem sub-uniplicato, intus sub-excavato.

Of a rather oval form, smooth, crimson ; the outer lip denticulated ; the callosity on the upper part of the body whorl smooth, oblique, rounded ; the inner lip slightly excavated near the anterior.

Locality unknown.

25. OVULUM SEMINULUM (pl. c. f. 41, 42), *Sowerby*, Sp. Conch. No. 1. p. 1.

O. testâ ovali sub-elongatâ, lævi, purpureâ vel rosçâ, obtusâ ; canalibus brevibus ; labio externo lævi ; labio interno tumido, anticè paululùm excavato.

A violet or rose-coloured small shell, of the cylindrical clays, very slightly angular in the middle, very obtuse at each extremity : the outer lip is smooth, and the callosity of the body whorl very slightly raised.

From the Friendly Islands.

26. OVULUM OBTUSUM (pl. c. f. 22 to 24), *Sowerby*, Sp. Conch. No 1. p. 1.

O. testâ solidâ sub-angulatâ, utrinque obtusâ pallidissimâ cinereâ, vel fulvâ lævi, canalibus breviusculis, integris ; aperturâ anticè sub-apertâ ; labio externo crasso, lævi ; labio internè, tumido, posticè sub-spiraliter uniplicato, ad canalem sub-tortuo, anticè emarginato, paululùm depresso, ad canalem sub-tortuo.

A small smooth solid species, rather angular in the centre, and obtuse at the extremities ; of a pale ash colour ; the aperture rather widened near the anterior extremity ; the outer lip thick, smooth ; the tumidity at the posterior part of the body whorl, slightly raised, sub-spiral ; the inner lip slightly emarginated and depressed near the anterior canal.

The coloured variety was brought in the Samarang from the China sea.

27. OVULUM SECALE (pl. c. f. 25 to 27), *Sowerby*, Sp. Conch. No. 1. p. 1.

O. testâ oblongâ, ovali in medio obsoletissimè angulato, lævi, albâ, vel fuscâ rubro marginatâ, vel pallidissimè violaceâ ; canalibus sub-productis, paululùm emarginatis ; labio externo crasso, lævi, anticè sub-angulato ; labio interno (ætate) tumido, posticè



sub-spiraliter uniplicato, ad canalem sub-producto, sub-tortuoso ; anticè emarginato, paululùm depresso, ad canalem angustato, sub-tortuoso.

The varieties figured, although rather different in form and appearance, bear the same general characters, and cannot be distinguished by any definite peculiarities from each other. We are not acquainted with the locality of the more thickly enamelled red and cream-coloured varieties which are in the collection of Mr. Cuming, the others are among those brought in the Samarang from the East Indian Archipelago. The four following species are not easily or definitely distinguishable, still, a glance at the figures will perhaps be thought to justify the attempted division, which, after all, must be arbitrary.

28. OVULUM FORMICARIUM (pl. c. f. 47, 48), *Sowerby*, Sp. Conch. No. 1. p. 8.

*O. testâ* Ovulo secali simillimâ sed angustiore, minore.

On the whole, thinner, more cylindrical, and smaller than *O. secale*. The specimens figured were brought in the Samarang from the East Indian Archipelago.

29. OVULUM SIMILE (pl. c. f. 28, 29), *Sowerby, junr.*, Pro. Zool. Soc. 1842.

*O. testâ* oblongâ, ovali, spiraliter striatâ, fulvâ ; canalibus sub-productis, emarginatis ; labio externo crasso, lævi, anticè sub-arcuato, utrinque breviusculo ; labio interno tumido, posticè spiraliter uniplicato, ad canalem sub-tortuo, acuminato, anticè subdepresso, intùs longitudinaliter unicarinato, ad canalem rectiusculo acuminato.

Like *O. secale*, but spirally striated. Mr. Cuming's collection, locality unknown.

30. OVULUM ACUMINATUM (pl. c. f. 49, 50), *Sowerby, junr.*, Moll. Voy. Samarang, pl. vi. f. 1. *a, b*.

*O. testâ* sub-ovali, in medio sub-ventricosâ, ad extremitates sub-rostratâ, lævi, albâ, longitudinaliter fasciatâ ; dorso margine distincto ; canalibus ad dorsum elevatis ; labio externo crasso, lævi, ad extremitates recedente, anticè sub-angulato, ad canalem emarginato ; labio interno tumido, intùs unicarinato, posticè spiraliter uniplicato, ad canales rectiusculo.

Differing from *O. secale* in being proportionately ventricose in



the middle, and having the extremities turned upwards at the back. Brought in the Samarang, from the coast of Bilaton.

31. OVULUM ACICULARE (pl. c. f. 43 to 46), *Lamarck*, Anim. s. vert. vii. p. 369.

O. testâ elongatâ, sub-cylindraceâ, pellucidâ, lævi, flavidâ vel purpureâ, ad extremitates obtusâ; labio externo paululum incrasato, anticè subangulato; labio interno rectiusculo sub-planulato, in carinam longitudinalem elevato, posticè leviter uniplicato, anticè sub-emarginato, ad canalem sub-tortuo, producto.

This elongated species partakes more or less of the form of the *Gorgonia* stems to which it adheres, the columella is generally somewhat flattened, and the aperture obtuse at the extremity of the canals. The colour is violet, dark, or reddish purple, or very pale fawn, or yellow. The dark purple specimen belongs to Mr. Cuming; the beautiful yellow variety, to Mr. Hanley.

32. OVULUM SUB-ROSTRATUM (pl. c. f. 39, 40), *Sowerby*, *junr.*, Pro. Zool. Soc., 1848.

O. testâ oblongâ, lævi, rubrâ-violascente, ad extremitates sub-productâ, acuminatâ; dorso margine distincto; aperturâ angustatâ, anticè sub-angulatâ; labio externo lævi, ad extremitates recedente; labio interno tumido, intus unicarinato, posticè spiraliter uniplicato, ad canales rectiusculo, producto.

Like *Secale*, but with the extremities more produced, and straight. Mr. Cuming's collection, from Honduras Bay.

33. OVULUM LANCEOLATUM (pl. c. f. 35, 36), *Sowerby*, *junr.*, Pro. Zool. Soc., 1848.

O. testâ elongatâ, angustatâ, minutissimè striatâ, aurantiâ rubescente seu albidâ; canalibus sub-productis, emarginatis; aperturâ angustatâ, labio externo planulato, crasso, breviusculo, in medio rectiusculo, anticè angulatim flexuoso; labio interno tumido, rubro longitudinaliter marginato, posticè ad canalem producto, sub-tortuoso, anticè intus longitudinaliter sulcato, uniplicato, ad canalem angusto, rectiusculo, acuminato.

A very remarkable shell, presenting the appearance of an *O. aciculare* much lengthened out; the aperture is very narrow excepting towards the anterior, where the outer lip is bowed out. The under surface of the shell is flat; the inner lip edged with a red line. In Mr. Cuming's collection, from Sorsogon, Island Luzon, Philippines. The white variety (?) is from Malacca.



34. OVULUM DEFLEXUM (pl. c. f. 37, 38), *Sowerby, junr.*,  
Pro. Zool. Soc., 1848.

O. testâ ovali-elongatâ, lævigatâ, albidâ; extremitatibus deflexis; aperturâ angustatâ; labio externo crasso, lato, complanato, anticè arcuato, breviusculo; labio interno longitudinaliter tumido, complanato, posticè uniplicato, anticè ad canalem acuminato.

Resembling *O. aciculare*, but with a broad, flattened, outer lip, and the extremities turned downward.

From Ticao, Philippines. Mr. Cuming.

35. OVULUM UNIPLICATUM (pl. c. f. 30, 31, 32), *Sowerby, junr.*, Pro. Zool. Soc. 1848.

O. testâ elongatâ, sub-cylindricâ, pellucidâ, minutissimè striatâ, aurantiâ, seu violaceâ; anticè sub-acuminatâ, posticè sub-rotundatâ; dorso margine distincto, aperturâ sub-apertâ, labio externo paululùm incrassato, ad extremitates recedente, anticè sub-angulato, ad canalem emarginato, labio interno intùs sub-depresso, posticè spiraliter uniplicato, ad canalem tortuo, versus labium externum deflecto, anticè sub-tortuo, acuminato.

The pale violet variety was dredged by Mr. Cuming, near Charleston, S. Carolina, a darker one, at Rio Janeiro, and the locality of the others is unknown. This species resembles *O. aciculare*, but is more acuminated at the anterior extremity, it is rather more ventricose, finely striated, the spiral fold near the anterior canal is more decided, and less oblique, and the edge of the canal above it invariably leans towards the outer lip.

36. OVULUM APERTUM (pl. ci. f. 106, 107), *Sowerby, junr.*

O. testâ lævigatâ elongato-ovali, fulvâ-rufescente; canalibus breviusculis; aperturâ apertâ, labio externo tenui, anticè sub-emarginatâ; labio interno posticè ad canalem sub-reflexo, anticè sub-tortuoso tenui; intùs sub-depresso.

Of a form between that of *O. triticeum*, and that of *secale*; of a dull reddish-brown colour. In the specimen which we have, the lip is not thickened nor reflected, although it appears to be a full-grown shell; if it be so, it will form a companion to *O. Patulum*.

We are indebted for the specimen to Mr. Hanley, who is unacquainted with its locality.

37. OVULUM PATULUM (pl. ci. f. 105, 113). *Bulla Patula, auctorum.* *Sinnia Patula, Leach.*



*O. testâ lævigatâ*, ovali, albidâ, canalibus breviusculis ; aperturâ apertâ ; labio externo tenui, haud inflexo ; labio interno posticè ad canalem uniplicato, anticè umbilicato, margine depresso.

This British species, and the *O. apertum*, are the only ones in which the outer lip is not thickened and inflected, and which would compose the genus "*Simnia*" of Leach.

38. OVULUM GIBBOSUM (pl. xcix. f. 15 to 19), *Lamarck*, *Bulla gibbosa*, *auct.*

*O. testâ oblongâ*, utrinque obtusâ, lævi, albidâ seu aurantiaco-fulvâ, dorso in medio angulatim gibboso ; canalibus brevibus, latis, antico sub-emarginato ; aperturâ anticè apertâ, labio externo lævi, crasso, in medio angulato, anticè sub-emarginato ; labio interno lævi, gibboso, intùs sub-depresso.

Of an oblong form, with an angular ridge in the centre of the back, and the extremities obtuse.

Collected at Panama by Mr. Cuming.

39. OVULUM EMARGINATUM (pl. xcix. f. 11, 12), *Sowerby*, *Sp. Conch. No. 1. p. 7.*

*O. testâ oblongâ*, utrinque obtusâ, substriatâ, pallidè fulvâ vel violacèâ, dorso ad marginem roseo, in medio angulatim gibboso canalibus brevibus, emarginatis ; aperturâ anticè apertâ, labio externo lævi, crasso, in medio angulato, ad extremitates labium internum longitudine superante ; labio interno lævi, gibboso, intùs sub-depresso.

Like *O. gibbosum*, but with the canals emarginated, and the inner lip longer than the outer at both ends.

Collected at St. Elena by Mr. Cuming.

OVULUM INTERMEDIUM (pl. c. f. 61, 62), *Sowerby*, *Sp. Conch. No. 1. p. 9.*

*O. testâ oblongâ*, lævi, in medio angulatâ, pallidè fulvâ, sub-tùs subaurantiaco ; canalibus sub-productis, emarginatis ; aperturâ sub-apertâ ; labio externo lævi, ad extremitates brevi, recedente ; labio interno lævi, gibbosâ, posticè tumorem crenulatum ferente, ad canalem productâ, anticè ad canalem angustatâ, productâ ; intùs sub-depressâ.

Named *O. intermedium*, on account of its forming a passage from *O. gibbosum*, and the species with produced extremities.

From Brazil.



41. OVULUM SUB-REFLEXUM (pl. c. f. 33, 34), *Sowerby, junr.*, Moll. Samarang, pl. vi. f. 10. *a, b.*

O. testâ oblongâ, albidâ, lævigatâ, sub-rostratâ; dorso in medio sub-angulato; extremitatibus sub-recurvis; aperturâ angustatâ; canalibus sub-emarginatis; labio externo lævi, rotundato, supra medium sub-angulato, anticè sub-angulatim arcuato; labio interno posticè tumido, ad canalem producto, recedente, intùs longitudinaliter depresso, anticè ad canalem producto.

An oblong, smooth, white shell, with the extremities rather produced, blunt and turned upwards. The outer lip is smooth, round, and flexuous.

Brought in the Samarang by Sir E. Belcher, from the coast of Bilaton.

42. OVULUM SPELTA (pl. c. f. 63, 64), *Lamarck*. Anim. s. vert. vii. p. 370.

O. testâ sub-ovali, rostratâ, striatâ, pallidè fulvâ rubescente; canalibus sub-contractis, sub-truncatis; aperturâ apertâ; labio externo crasso, lævi, rotundato, arcuato, anticè sub-angulato, ad extremitates breviusculo; labio interno in medio sub-ventricosus, lævi, posticè uniplicato, ad canalem producto, tortuo, anticè internè depressiusculo, ad canalem producto, rectiusculo.

The shortest and most ventricose of the rostrated species. The outer lip is thick and arched, the inner lip has a transverse fold at the base of the posterior canal.

From the Pacific ocean.

43. OVULUM BIROSTRE (pl. c. f. 65, 66), *Lamarck*, Anim. s. vert. vii. p. 370.

O. testâ elongatâ fusiformi, roseâ, in medio albifasciatâ, vel pallidè fulvâ, in medio lævigatâ, sub-ventricosâ, ad extremitates striatâ, recti-rostratâ; aperturâ anticè subapertâ, labio externo crasso, sub-flexuoso, posticè ad canalem attenuato, anticè angulatim arcuato ad canalem contracto; labio interno in medio sub-ventricosus, ad basin rostrarum sub-tumido, ad canales rectiusculo.

Smooth in the centre, which is slightly ventricose, and striated at the ends, which are narrow, and rather straight. At the anterior part of the aperture, the outer lip, after widening at the usual place, contracts rather suddenly, and recedes at the canal.

The pale variety was taken in sandy mud, and brought by Dr. Sibbald from Japan. The beautiful red variety with the white band in the middle is from Singapore.



44. OVULUM PHILIPPINARUM (pl. c. f. 57, 58), *Sowerby, junr.*, Pro. Zool. Soc. 1848.

O. testâ elongatâ, gradatim rostratâ, lævigatâ, fulvâ; subtùs albidâ; aperturâ angustatâ ad canales truncatâ; labio externo lævi, albâ, rectiusculo, anticè angulatim contracto, labio interno lævi, intùs anticè sub-emarginato.

The contraction towards the extremities is more gradual, and the outer lip is straighter than in *O. birostre*, and the canals are truncated at the extremities. The colour is pale fawn, darker in the aperture, and nearly white at the lips.

Several specimens were brought by Mr. Cuming from the Isl. of Capul, Philippines.

45. OVULUM "GRACILE (pl. c. f. 51, 52, 53), *Sowerby, junr.*, Moll. Samarang, pl. vi. f. *a, b, c*.

O. testâ elongatâ, fusiformi, minutissimè striatâ, ad extremitates attenuatâ, recurvâ; labio externo lævi, sub-angulatim arcuato; labio interno lævi, in medio sub-ventricoso, ad extremitates attenuato, acuminato; colore pallidè fulvo, dorso prope marginem longitudinaliter rubro-fasciato.

Fusiform, striated, more gradually ventricose in the centre, and less attenuated at the canals than either *O. longirostratum* or *O. recurvum*. At the back, near the margin, is an irregular longitudinal band of dull red, interrupted in the centre.

Brought from the east coast of Borneo in the Samarang.

46. OVULUM RECURVUM (pl. c. f. 54, 55, 56), *Sowerby, junr.*, Moll. Samarang, pl. vi. f. 3 *a, b, c*.

O. testâ elongatâ, in medio ventricosâ, sub-angulatâ; lævigatâ, ad extremitates attenuatâ, recurvâ; aperturâ in medio lineari, anticè apertâ; labio externo crasso, anticè angulatim arcuato, ad extremitates truncato; labio interno in medio ventricoso, ad extremitates attenuato, recurvo.

The canals are not so long and attenuated as in *O. longirostratum*, the aperture, excepting at the anterior opening, is linear, the outer lip is thick. The colour is of the palest fawn.

Brought in the Samarang from the China seas.

47. OVULUM LONGIROSTRATUM (pl. c. f. 59, 60), *Sowerby*, Sp. Conch. No. 1. p. 9.



O. testâ elongatâ, in medio ventricosâ, sub-angulatâ, lævi, ad canales sub-recedente, anticè sub-angulatâ, labio interno lævi, ad canales attenuato.

A beautiful shell, rather angular in the centre, with the canals elongated, narrow, and gracefully curved backwards; the colour in the aperture is delicate pink, the rest of the shell a very pale pinkish fawn.

It is from the Adriatic Sea.

48. OVULUM VOLVA (pl. xcix. f. 6, 7, 8), *Lam. Anim. s. vert. vii.* 370.

O. testâ ovali, utrinque longirostratâ, fulvâ, spiraliter striatâ; aperturâ apertâ; labio externo crasso, obscurè crenulato, in medio arcuato, ad extremitates breve, spiraliter recedente, labio interno in medio ventricosâ, ad canales recurvo, truncato.

This well-known species is ventricose in the middle, and with elongated, recurved extremities. It is of a fawn colour, inclining to pink at the margin.

The comparatively smooth variety figured is from the Island of Mindinao, by Mr. Cuming. The other is from China.

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#### UNIDENTIFIED SPECIES.

O. album, *Dufo*, Ann. Sci. Nat. 1840, p. 186.

O. nigerinum, *Dufo*, Ibid.

O. gallinaceum and O. corrugatum would be more properly referred to the genus *Erato*.

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## OVULUM.

## PLATES XCIX, C, CI.

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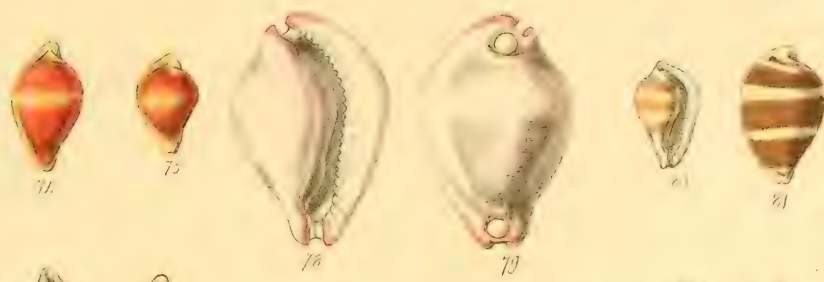
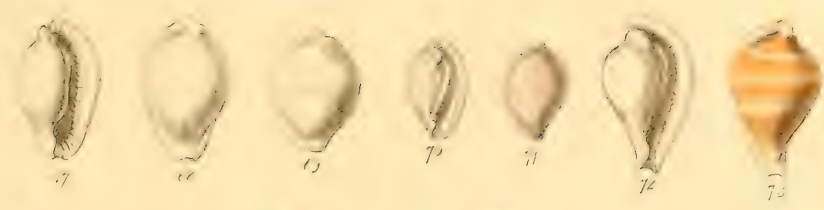


















## MONOGRAPH OF THE GENUS

### PHOLAS.

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*Char. Gen.* Molluscum acephalum terebrans. Testa bivalvis, plerumque subcylindræa, tenuis, alba, plerumque scabra, epidermide induta, valvæ æquales, infra umbones processis duobus arcuatis.

A well-known genus of boring Mollusca, with an æquivalve, colourless shell, of a more or less cylindrical form, generally covered with an epidermis, which, in some species, is so thin as to be scarcely perceptible. Most of the species have a kind of protecting shield on the umbones, or between the dorsal edges, consisting of one or more laminated pieces. Some species are gaping at the anterior ventral margin; and in others, when mature, the hiatus is closed by a more or less horny lamina. In the species separated by some authors under the generic name *Pholadidæa*, the posterior integuments closing the valves are lengthened at the termination and formed into a cup, and in others this cup surmounts a shelly tube, formed for the protection of the posterior tubes of the animal. In one character all species of true *Pholades* agree, and that is, in having a pair of curved processes advancing from under the umbones. In the genera *Xylophaga* and *Triumphalia* these are wanting.

1. PHOLAS DACTYLUS (pl. cii. f. 10, 11, pl. cv. f. 47), *Linn.* 1110. *Chemn.* f. 857.

Ph. testâ apertâ, elongatâ, posticè subattenuatâ; costis angulatis, acutè imbricatis, versus extremitatem evanidis; laminis dorsalibus duo magnis anticis, unâ elongatâ posticâ.

Elongated, with the anterior ventral margin widely gaping, and ending in a point; ribs angular, sharply imbricated, spreading over the anterior and middle parts of the shell. The two broad accessory valves on the umbones have the nucleus posterior and lateral; one long posterior valve. Fig. 47 represents a mere dwarf distortion.

In sandstone, at low water. Many parts of Great Britain.



2. PHOLAS CHILOENSIS (pl. cii. f. 1, 2), *King*, Zool. Journ. vol. v. p. 334. Campechensis, *Gmel.* 3216? Candida, var. *Nonnul.*

Ph. testâ apertâ, elongatâ, subcylindricâ, ad extremitates rotundatâ; costis validis, arcuatim imbricatis, omninò radiatâ; laminis dorsalibus, ad umbones duabus longitudinalibus, tùm unâ transversali, unâ elongatâ posticâ.

Elongated, rounded at both ends, ribs strong, radiating all over the shell, fainter towards the posterior end, with arched imbrications. Accessory valves, two, on the umbones, large, with apices posterior-central, one across, small, and one longitudinal, posterior.

Gmelin's *Ph. Campechensis* may possibly be the same species, although named as inhabiting the bay of Campeche, while this is from Chiloe (*Cuming*); but the figure and description are too obscure to be depended upon.

3. PHOLAS LAQUEATA (pl. ciii. f. 19, 20), *Sowerby, junr.*, Pro. Zool. Soc., 1849.

Ph. testâ apertâ, elongatâ, in medio ventricosâ; costis arcuatim imbricatis, posticè acutè armatis; ad marginem dorsalem areâ planâ; laminis dorsalibus, ad umbones duabus longitudinalibus, tùm unâ transversali, unâ elongatâ posticâ.

This shell differs from *Ph. Chilensis* in having a small plain area at the posterior dorsal margin. It also exhibits the pointed imbrications on the posterior ribs, and the arched ones on the central ribs, in stronger development.

Collected at the Isle of Plata by Mr. Cuming.

4. PHOLAS ORIENTALIS (pl. cii. f. 3, 4), *Gmel.* 3216. *Chemn.* f. 860.

Ph. testâ apertâ, elongatâ, posticè attenuatâ; costis crebris angulatim imbricatis anticè radiatâ, posticè lævigatâ; laminis dorsalibus, unâ ad umbones magnâ, tùm unâ parvâ transversali, posticè unâ elongatâ.

Open, elongated, with the ribs radiating over half the shell, the posterior part being smooth. The principal dorsal valve broad, with the apex prominent, one small cross-piece, and one narrow and long.

Found at the mouth of the Indus, Kurachee, Scinde.



5. PHOLAS COSTATA (pl. cii. f. 8, 9), *Linn.* 1111.

Ph. testâ apertâ, elongatâ, ventricosâ; costis validis subrotundatis, imbricatis, omninò radiatâ; laminâ dorsali triangulari, corneâ.

Ventricose, with thick, imbricated ribs radiating over the whole shell. The dorsal shield is broad, triangular, horny, with a central apex, placed upon a triangular disc, formed by the reflection of the dorsal edge of the shell over the umbones.

Collected in rocks at Mexico, and United States, America.

6. PHOLAS PARVA (pl. civ. f. 31, 32), *Pennant.*

Ph. testâ apertâ, ventricosâ, anticè emarginatâ, angulari; costis radiatis et lineis concentricis cancellatâ; ad marginem dorsalem reflexâ; laminâ dorsali angustatâ, apice posticâ.

Open, ventricose, gaping angularly in front, with the umbones nearly central, shielded by a narrow curved plate placed on the reflected margins of the dorsal edge.

Found in many ports of Great Britain.

7. PHOLAS MANILLÆ (pl. ciii. f. 17, 18), *Sowerby, junr., Pro. Zool. Soc., 1849.*

Ph. testâ apertâ, elongatâ, anticè subangulatâ; costis subdis-  
tantibus, acutissimè imbricatis, omninò radiatâ; umbonibus sub-  
anticis; ad marginem dorsalem, ante umbones, areâ planâ; laminâ  
dorsali parvâ, arcuatâ.

Much longer and narrower than *Ph. similis*, with the dorsal shield much smaller in proportion.

From Manilla bay. *Cuming.*

8. PHOLAS SIMILIS (pl. ciii. f. 12, 13, 14), *Gray, MS. Brit. Museum.*

Ph. testâ latè apertâ, ventricosâ, tenui, anticè acutè angulatâ, posticè subattenuatâ; costis distantibus, angulatis, acutè imbricatis, anticè radiatâ; umbonibus subcentralibus; ad marginem dorsalem, ante umbones, areâ planâ; laminâ dorsali magnâ, arcuatâ, apice terminali.

A rather ventricose shell, angular at the anterior extremity, and very widely gaping at the ventral margin. The ribs are few, sharply imbricated, and spreading over the anterior part of the shell only. The umbones are nearer the centre than in *Ph. Manilla*, and the dorsal shield is much larger in proportion.

From New Zealand. *Earle.*



9. PHOLAS CANDIDA (pl. ciii. f. 21, 22, 23), *Linn. Syst. Nat.* no. 1111.

Ph. testâ tenui, gradatim apertâ, elongatâ, posticè subattenuatâ, anticè subrotundatâ; costis evanidis, ad extremitatem anticam acutè imbricatis; laminâ dorsali parvâ, elongatâ.

Thin, gradually opening at the ventral margin, rounded at the anterior extremity, attenuated posteriorly; ribs faint, excepting at the anterior part of the shell, where they are sharply imbricated.

Britain.

10. PHOLAS FRAGILIS (pl. cviii. f. 92, 93), *Sowerby, junr.*, *Pro. Zool. Soc.*, 1849.

Ph. testâ apertâ, elongatâ, anticè emarginatâ, angulari; costis radiatis et lineis concentricis cancellatâ; ad marginem dorsalem reflexâ; laminâ dorsali angustâ, arcuatâ.

Resembling *Ph. parva*, but much narrower, and with the umbones placed much nearer the anterior extremity.

Collected by Mr. Cuming in soft stone, low water; Bassy, Isle of Samar, Philippines.

11. PHOLAS AUSTRALASÆ (pl. cvi. f. 73), *Gray*, *MS. Brit. Museum*.

Ph. testâ gradatim apertâ, elongatâ, anticè subrotundatâ; umbonibus prope extremitatem anticam positis; costis distantibus, obtusè imbricatis, omninò radiatâ; ad marginem dorsalem, ante umbones, areâ planâ; laminâ dorsali unâ, breviusculâ (?).

Much resembling our British *Ph. candida*, but a larger and stronger shell, with the ribs much more obtusely imbricated, and the umbones nearer to the anterior extremity. I have not seen the dorsal shield, but should imagine it to be much shorter in proportion than that of *Ph. candida*.

Abundant in Australia.

12. PHOLAS TRUNCATA (pl. civ. f. 29, 30), *Say*, *American Journal of Science*, vol. ii. p. 321.

Ph. testâ subcylindricâ, anticè angulatim apertâ, ad extremitatem angulatâ, posticè ad extremitatem quadratâ; lineis elevatis, concentricis, radiatim imbricatis, ornatâ; posticè lævigatâ; laminâ dorsali elongatâ, arcuatâ, posticè subquadratâ.

This shell is remarkable for its cylindrical and truncated form. The radiating ribs are only seen by the imbrications, or flutings, on the concentric ridges.



13. *PHOLAS CRUCIFERA* (pl. civ. f. 24, 25, 26), *Sowerby*,  
Pro. Zool. Soc., 1834, p. 69.

Ph. testâ utrinque obtusâ, haud latè apertâ; costis creberrimis, imbricatis, omninò radiatâ; laminâ dorsali corneâ, ad umbones super marginem reflexum in crucis formâ positâ.

The dorsal margin of the shell is reflected over the umbones so as make a cross-shaped platform for the reception of the accessory valve, which is horny, and in maturity spreads over the dorsal margins. The ribs are close, and closely imbricated. The ventral opening is not large.

Found in soft sandstone at half-tide on the shores of the island of Puma, in the Gulf of Guayaquil; in soft stone at low water in the bay of Caraccas, West Colombia; and in hard clay, in thirteen fathoms water, in the Gulf of Nocoioy, in Central America.

14. *PHOLAS CRISPATA* (pl. civ. f. 37), *Linn.* Syst. Nat. 1111.

Ph. testâ ventricosâ brevi, in medio canali constricto divisâ; anticè angulari, latè hiantè, imbricis acutis radiatim ornatâ; posticè substriatâ, subrotundatâ.

With the exception of *Ph. latissima*, this species is the broadest of any in proportion to its width. It gapes very widely in front, and is divided in the centre by a groove, the anterior portion being imbricated by strongly raised angular points in radiating series, and the posterior part nearly smooth. There is no accessory valve; but the dorsal edge is strongly reflected over the umbones, and the tubes of the mollusk are protected by an external epidermidous case.

Great Britain.

15. *PHOLAS CONSTRICTA* (pl. civ. f. 27, 28), *Sowerby, junr.*,  
Pro. Zool. Soc., 1849.

Ph. testâ ventricosâ, anticè utrinque apertâ; in medio areâ angustâ, constrictâ, obliquè divisâ; anticè radiatim scabrosâ, posticè minutè concentricè striatâ; ad marginem dorsalem posticè reflexâ.

Resembling *Ph. parva*, but without any accessory valve, and having a double dividing line across the centre, as in *Ph. papyracea*, &c.

Collected by Mr. Cuming at the Straits of Sunda.

16. *PHOLAS LATISSIMA* (pl. ciii. f. 15, 16), *Sowerby, junr.*,  
Pro. Zool. Soc., 1849.

Ph. testâ subquadratâ, subcompressâ, apertâ, anticè angulatâ,



posticè truncatâ; costis moniliferis radiatis et lineis concentricis cancellatâ; umbonibus subcentralibus, margine dorsali reflexo.

A wide, rather flat shell, widely gaping in front, and truncated at the posterior extremity, with radiating ribs forming knots on the raised lines of growth. It appears to be without accessory valves.

Taken in Manilla Bay. *Cuming*.

17. *PHOLAS DARWINII* (pl. cvii. f. 76, 77), *Sowerby, junr.*, Pro. Zool. Soc., 1849.

Ph. testâ brevi, latè apertâ, in medio areâ constrictâ divisâ; anticè radiatim scabrâ; ad marginem ventralem lævi, recedente, ad marginem dorsalem arcuatim reflexâ; posticè concentricè striatâ, ad extremitatem posticam margine validè recurvo.

A very remarkable shell, rather short, widely opening in front, divided in the centre by a constricted groove. Before the groove it is roughened by undulated lines of growth, forming radiating ribs. The ventral margin is smooth, and recedes towards the dorsal part, where it is turned over so as to form a broad reflected edge reaching to the umbones. Posterior to the dividing line it is marked by raised lines of growth, and gapes widely; at the end there is a broad extension of the shell curved outwards.

Collected by Mr. Darwin at Chiloe.

18. *PHOLAS TEREDINÆFORMIS* (pl. cviii. f. 97, 98), *Sowerby, junr.*, Pro. Zool. Soc., 1849.

Ph. testâ globosâ, apertâ, in medio divisâ; anticè margine ventrali subangulatâ; costis laqueatis concentricis ornatâ; posticè brevi, lævigatâ; laminâ dorsali unâ subquadratâ, super marginem reflexam testæ positâ.

A small, globose species, in some degree resembling the young of *Ph. clavata*, &c., but differently sculptured; and although it has the appearance of a mature shell, it is quite possible that it may belong to that group, and its being in so soft a substance as wax may be the reason for the enclosing laminæ not being formed. This and the next species (*Ph. aperta*) were at first thought to belong to the genus *Xylophaga*; but, on examination, were found to possess the curved processes in the hinge, which are characteristic of the genus *Pholas*, and are not found in *Xylophaga*.

Found in cakes of floating wax on the coast of Cuba.



19. PHOLAS APERTA (pl. cviii. f. 99, 100), *Sowerby, junr.*, Pro. Zool. Soc., 1849.

Ph. testâ globosâ, apertâ, in medio divisâ; anticè margine ventrali subangulatâ; costis laqueatis concentricis ornatâ; posticè lævigatâ, subattenuatâ; laminis dorsalibus quatuor, parvis.

A small, globose species, differing from *Ph. Teredinaformis* in having the posterior end longer, and in having two pairs of small dorsal laminae. Being found in mahogany, the shell has a dark reddish tint. In other respects it is subject to the same remarks that are applied to *Ph. Teredinaformis*.

Floating wood, Straits of Sunda and Banca. *Cuming*.

20. PHOLAS CALIFORNICA (pl. cii. f. 5, 6, 7), *Conrad*, Ann. Nat. Sc. Phil. i. p. 236. t. 18. f. 4.

Ph. testâ subcylindricâ, ventricosâ, magnâ, in partes tres obliquè divisâ; parte anticâ prope marginem ventralem sublævigatâ, dorso usque ad medium imbricatum costato; parte mediâ planâ, epidermide crassâ indutâ; parte posticâ obliquè triangulari, transversè epidermide laminatâ, ad terminum truncatâ; margine ventrali integumento diviso, elongato, corneo, celato; margine dorsali integumento triplicato, elongato ad umbones, angustato, celato.

A very large shell, with the surface of each valve divided into three parts: the anterior part, ventrally smooth, dorsally costated; the intermediate part plain; the terminal part, with the epidermis forming transverse laminae in relief. The ventral margin is covered by a long, divided, folded integument, and the dorsal margin by another, the anterior part of which is bilobate on each side, and the posterior part is elongated and trifold. The specimen figured (half the natural length) is in Mr. Cuming's collection. Mr. Metcalfe possesses one, not so perfect, but about five inches long.

Sandstone, deep water, Monte Rey, California. *Mr. Hartweg*.

21. PHOLAS INCII (pl. cv. f. 45, 46), *Sowerby, junr.*, Pro. Zool. Soc., 1849.

Ph. testâ subcylindricâ, brevi, ventricosâ, in partes tres obliquè divisâ; parte anticâ prope marginem ventralem sublævigatâ, dorso usque ad medium minutè longitudinaliter et transversè striatâ; parte mediâ planâ, epidermide crassâ indutâ; parte posticâ obliquè triangulari, epidermide in laminis serratis productâ; margine dorsali integumento in partes quatuor diviso, quarum duas anticâs breviusculas, duas posticas elongatas, integras.



Differing from *Ph. Californica* in the dorsal side of the anterior part, which is finely striated in both directions; in the epidermidal laminæ, which are beautifully serrated; in the integumental covering of the dorsal edge, which is divided into four parts, of which the posterior pair are long, and one overlapping the other; and in the absence of integumental laminæ on the ventral margin.

Collected by Capt. Ince, R.N., in coral rock at Raine's Island, Torres Straits.

22. *PHOLAS ACUMINATA* (pl. cv. f. 48, 49, 50), *Sowerby*, Pro. Zool. Soc., 1834.

*Ph. testâ* subpyriformi, clausâ, ventricosâ; in partes tres obliquè divisâ; parte anticâ prope marginem ventralem lævigatâ, in medio et ad dorsum minutè radiatim scabrâ; parte mediâ latè planâ, epidermide crassâ indutâ; parte posticâ acutè angulatâ, attenuatâ, fasciâ serratâ marginatâ, epidermide laminis angulatis indutâ; margine ventrali integumento elongato, integro; margine dorsali integumento ad umbones magno, subquadrato, posticè altero elongato, prope umbones rotundato; marginibus ventralibus valvarum unidentatis.

Shell pyriform, rounded anteriorly, and tapering towards the end. Surface of the valves divided obliquely by serrated grooves into three parts; the anterior part divided again longitudinally; the ventral side smooth, horny; the dorsal side finely ribbed in both directions, the middle part plain, with a thick epidermis; in the posterior part, the epidermis is raised in smooth laminæ, corresponding in shape with the attenuated and acutely angulated termination. The external integuments are, one narrow, folding along the ventral margin; one large, subquadrate upon, and anterior to, the umbones; the other, adjoining by a rounded lobe, and tapering off to the posterior end of the dorsal edge: these are not quite divided by a central line.

In limestone rocks at low water, at Panamá. *Cuming*.

23. *PHOLAS QUADRIZONALIS* (pl. cviii. f. 88, 89), *Spengler*.

*Ph. testâ* clausâ, subcylindricâ, ventricosâ, in partes tres transversales divisâ; parte anticâ prope marginem lævigatâ, in medio et ad dorsum minutè striatâ; parte medianâ planâ; parte posticâ epidermide laminis serratis indutâ; margine dorsali integumento subtetaceo in partes quatuor diviso, quarum duas anticas breviusculas, duas posticas elongatas, trilobatas.

Resembling *Ph. Incii*, but much smaller, and more finely



striated, the posterior laminae of the epidermis are more minutely serrated, and the external laminae, covering the dorsal edge, are very differently shaped, the posterior pair being trilobate.

24. *PHOLAS CALVA* (pl. cv. f. 51, 52, 53), *Sowerby*, *Pro. Zool. Soc.*, 1834.

*Ph. testâ subpyriformi*, clausâ, anticè ventricosâ, in partes tres obliquè divisâ; parte anticâ prope marginem ventralem lævigatâ, in medio et ad dorsum minutè radiatim scabrâ; parte mediâ latè planâ, epidermide crassâ indutâ; parte posticâ subrotundatim angulatâ, attenuatâ, epidermide laminatâ, fasciâ serratâ marginatâ; margine ventrali integumento elongato, integro; margine dorsali integumento subtestaceo super umbones et latera, marginibus lobatis, expanso, posticè altero elongato inter lobas integumenti postici paululùm intruso.

Differing from *Ph. acuminata* in the shape of the laminae and termination of the posterior portion, which are rounded, and in the external dorsal covering, or shield, which is more shelly, and spread over a large portion of the sides of the shell as well as the umbones, and the posterior dorsal integument is intruded a short space between two of its lobes.

Collected by Mr. Cuming in very hard stone at low water, in Panamá Bay.

25. *PHOLAS BRANCHIATA* (pl. cviii. f. 82, 83), *Gould*, *Pro. Bost. Soc. Nat. Hist.*, 1845, p. 290.

*Ph. testâ clausâ*, subpyriformi, ventricosâ, in partes tres obliquè divisâ; parte anticâ prope marginem ventralem sublævigatâ, dorso usque ad medium minutè striatâ; parte mediâ planâ, epidermide crassâ indutâ; parte posticâ ad terminum attenuatâ, epidermide in laminis lævigatis rotundatis dispositâ; margine ventrali integumento elongato, integro; margine dorsali laminâ testaceâ super umbones, lateraliter et subanticè expansâ, marginibus integris; posticè integumento elongato claviformi, usque ad medium laminae umbonalis intruso.

Differing from *Ph. calva* in the shape of the umbonal plate, which is less spread, and more even and entire; and in that of the posterior dorsal integument, which is intruded half-way into the umbonal plate.

26. *PHOLAS OVATA* (pl. cvii. f. 71, 72), *Gray*, MS. British Museum.

*Ph. testâ subpyriformi*, ventricosâ, clausâ, in medio transversè



divisâ; anticè in medio et ad marginem dorsalem longitudinaliter striatâ, radiatim costatâ, ad marginem ventralem lævigatâ; posticè lævigatâ, marginibus longitudine inæqualibus; umbonibus laminâ testaceâ expansâ cœlatâ.

The specimen in the British Museum is imperfect, and the locality is not stated. It is divided in the centre by a serrated groove, and the ventral margins of the valves are smooth as in the preceding species. The posterior portion is smooth and tapering, one valve being considerably longer than the other.

27. *PHOLAS CURTA* (pl. civ. f. 33, 34, pl. cviii. f. 105), *Sow.*, *Pro. Zool. Soc.*, 1834.

Ph. testâ brevi, ovali, clausâ, in medio obliquè divisâ; parte anticâ margine ventrali lævi, ventricoso, medio ad dorsum costatâ et minutè striatâ; parte posticâ lævigatâ; laminâ dorsali subcylindricâ, terminibus subangulatis.

Oval, divided in the centre, with enclosed tumid ventral margin. The posterior part is short and smooth, with a thin epidermis. The dorsal shield is rather large, oval, straight at the sides, angular at the ends.

Figure 105 is from a specimen in the British Museum. The other specimens were obtained in soft stone at low water on the coast of West Colombia, by Mr. Cumming.

28. *PHOLAS MULTISTRIATA* (pl. civ. f. 35, 36), *Sowerby*, *Pro. Zool. Soc.*, 1849.

Ph. testâ oblongâ, clausâ, transversè obliquè divisâ; parte anticâ margine ventrali lævigato, medio ad dorsum minutissimè striatâ; parte posticâ lævigatâ, laminis attenuatâ; laminâ dorsali ovali, posticè circulari, anticè subacuminatâ.

Resembling *Ph. curta* (f. 33, 34, 105), but the striæ on the umbonal part of the anterior are very much finer, and the posterior termination is elongated. The dorsal shield is more oval, rounded anteriorly, and acuminated posteriorly.

Collected by J. E. Dring, Esq., R.N., in coral rocks at low water at Turtle's Island, on the north coast of Australia.

29. *PHOLAS STRIATA* (pl. civ. f. 40, 41, 42, pl. cv. f. 43, 44), *Linn. Syst. Nat.* 1111. Ph. nana, *Pulteney*. Ph. pusilla, *Linn. Syst. Nat.* 1111. Ph. lignorum, *Spengler*. Ph. conoides, *Fleming*. Ph. clavata, *Lamarck*, *Anim. s. vert.* 2nd edit. p. 46.

Ph. testâ clausâ, divisâ; anticè angulatum longitudinaliter



costatâ, costis serratis, margine ventrali lævigato, rotundato; posticè prope medium concentricè striatâ, extremitate plus minusve attenuatâ; laminis tribus, unâ elongatâ ad margines ventrales, unâ inter margines dorsales, unâ magnâ, subquadratâ, posticè emarginatâ, super umbones positâ.

An enclosed species, with the dorsal part of the anterior ribbed angularly by raised, serrated ridges. The posterior portion is concentrically striated, and at the termination indefinitely extended. There is a thin, long plate between the dorsal margins, and another over the ventral margins. The umbonal shield is large, rather quadrate, and at the posterior edge emarginated.

Found on the coasts of Great Britain, and in floating wood in various parts of the Atlantic. Mr. Cuming has collected varieties at the Philippine Islands.

30. PHOLAS CUNEIFORMIS (pl. civ. f. 38, 39, pl. cviii. f. 86, 87), *Say*, Journ. Ac. Sci. Philad. vol. ii. p. 322.

Ph. testâ oblongâ, clausâ, transversè obliquè divisâ; anticè margine ventrali lævigato, rotundato, latere dorsali costis longitudinalibus arcuatis, serratis; posticè concentricè striatâ, plus minusve attenuatâ; laminis tribus, unâ elongatâ ad margines ventrales, unâ inter margines dorsales, unâ ad umbones anticè obtusè angulatâ, posticè acuminatâ.

Resembling *Ph. striata* (f. 40, 41, 42, 43, 44), but with the striae, or ribs, of the anterior part curved, not angular, and the dorsal shield smaller, and pointed at each end.

N. America.

31. PHOLAS SEMICOSTATA (pl. cviii. f. 84, 85), (*copied*), *Lea*, Pro. Bost. Soc. Nat. Hist., Nov. 1814, pl. 24. f. 1.

Ph. testâ *Ph. cuneiformi* simillimâ, sed magis pyriformi; laminis marginalibus nullis?

This may possibly be identical with *Ph. cuneiformis*, or with *Ph. striata*, but it is more ventricose, and no marginal plates are mentioned in the description.

It is a very small shell, inhabiting the coasts of South Carolina.

32. PHOLAS CORTICARIA (pl. cviii. f. 94, 95, 96), *Gray*, MS. Brit. Mus.

Ph. testâ clausâ, divisâ; anticè angulatim longitudinaliter costatâ, costis serratis, margine ventrali lævigato; posticè prope medium



concentricè striatâ, extremitate plus minusve attenuatâ; laminis tribus, quarum unâ elongatâ ad margines ventrales, unâ inter margines dorsales, unâ super umbones parvâ, subquadratâ.

Resembling *Ph. striata*, but having the dorsal shield very small, and of an oblong square, somewhat rounded anteriorly. The specimens, having bored in floating mahogany, have taken a reddish colour.

33. PHOLAS RIVICOLA (pl. cviii. f. 90, 91), *Sowerby, junr.*, Pro. Zool. Soc., 1849.

Ph. testâ clausâ, cuneiformi, transversè canali divisâ; parte anticâ obliquè dimidiatâ, latere dorsali striato, latere ventrali lævi, subangulato; parte posticâ subelongatâ, lævi, epidermide laminis angulatis marginibus serratis ornâtâ; laminâ dorsali subquadratâ, in medio longitudinaliter divisâ.

A cuneiform, enclosed species, divided transversely by a canal; the dorsal side of the anterior obliquely striated; the posterior is attenuated, and covered by a dark olive-green epidermis, which is thrown out at regular intervals in angular fringed laminæ. This is the only *Pholas* yet found inhabiting fresh water. The fringes of the epidermis, and the divided dorsal shield, render it perfectly distinct. For this species I am indebted to the courtesy of A. Adams, Esq., Surgeon of the ship Samarang, who collected it at a place called Gunny Taboor, twelve miles up the Pantai river, where the water was perfectly fresh, and where it burrowed in considerable numbers in the floating piles which had been long used as a landing pier.

34. PHOLAS OBTECTA (pl. cviii. f. 80, 81), *Sowerby, junr.*, Pro. Zool. Soc., 1849.

Ph. testâ ovatâ, subpyriformi, clausâ, canali transversè dimidiatâ; parte anticâ latere dorsali minutè striato, latere ventrali lævi, rotundo; parte posticâ lævi, ad margines laminis duabus protectâ, ad terminum laminis duplicatis cyathiformibus productâ; ad umbones laminâ testaceâ, posticè bilobatâ, anticè latè versus marginem ventralem expansâ.

A rather ovate shell, rounded anteriorly, and attenuated posteriorly. It is divided by a groove, and the anterior part is closed by an expansion of the margins; posteriorly, the dorsal and ventral edges are covered by a folded membrane, and at the end there is a narrow, flattish, cup-shaped expansion divided laterally. The umbones are covered by a shelly case, which reaches in two lobes



towards the posterior end, and is spread over a large part of the anterior, towards the ventral edge, so as, when fully developed, to cover the entire front.

Collected by J. E. Dring, Esq., R.N., in coral rock, low water, at Turtle's Island, north coast of Australia.

35. PHOLAS SPATHULATA (pl. cvi. f. 69, 70), *Sowerby, junr.*, Pro. Zool. Soc., 1849.

Ph. testâ elongatâ, clausâ, obliquè divisâ; parte anticâ radiatim costatâ, subangulatâ; parte posticâ concentricè leviter striatâ, subtruncatâ, ad margines integumento protectâ, ad terminum in cyatho corneo, lateribus spathuliformibus, productâ; ad umbones laminis duabus æqualibus, posticè bilobatis, anticè elongatis.

The front part is ribbed and imbricated; the posterior is rather smooth, elongated, and squared at the end, with the edges covered by a folded integument. The cup is rather flat, and separated at the sides. The umbonal shield consists of two trilobate laminæ, the anterior lamina elongated to reach the anterior termination.

From New Zealand. *Mr. Earle.*

36. PHOLAS CONCAMERATA (pl. cvi. f. 67, 68), *Deshayes.*

Ph. testâ ventricosâ, clausâ, obliquè divisâ; parte anticâ inflatâ, radiatim costatâ, costis imbricatis, marginibus dorsalibus latè reflexis; parte posticâ striatâ, ad terminum subquadratâ; in cyatho corneo, ad latera diviso, productâ; ad umbones laminâ subquadratâ, magnâ, posticè subacuminatâ; tum laminis duabus latis cum marginis testæ terminalibus confluentibus.

The front part of the valves is ribbed, and very strongly imbricated, and the dorsal edges are very widely turned back over the umbones. The cup is separated at the edges. There are three thick, shelly dorsal plates: one broad and rather square, the two others opposed to each other, very broad and tumid, and anteriorly confluent with the expanded margin, which fills up the ventral gape.

Found in sandstone, deep water, at Monte Rey, California, by M. Hartweg.

37. PHOLAS PAPHRACEA (pl. cvi. f. 66), *Turton*, Dithyr. Brit. p. 2. pl. i. f. 1 to 4. Ph. lamellata, *Turt.*, Dithyr. Brit. p. 4. pl. i. f. 5, 6. Pholadidæa Loscombiana, *Turt.*, Conch. Dict. p. 147. Ph. Goodallii, Dict. Sc. Nat. vol. xxxvii. p. 532. Ph. striata, *Griffiths et Cuvier.*

Ph. testâ subcylindricâ, clausâ, canali serrato divisâ; parte



anticâ costatâ et imbricatâ, margine ventrali lævi, inflato, margine dorsali confluyente, usque ad umbones reflexo, tumido; parte posticâ lævi, subtruncatâ, ad terminum appendice cyathiformi lateribus subquadratis.

This common British species is rather cylindrical in form, enclosed at the anterior by a thin test, which, from the ventral, is continued over the dorsal margins in a kind of double ridge. Close to the umbones, this ridge is divided transversely, so as to form a pair of separate plates. At the posterior termination is a cup-shaped appendage, which is rather quadrate in form.

Found in various parts of Great Britain.

38. PHOLAS CLAUSA (pl. cvii. f. 74, 75), *Gray*. *P. explanata*, *Spengler*?

Ph. testâ clausâ, subovali, ventricosâ, omninò striis radiatis et costis moniliformibus concentricis ornatâ; margine dorsali posticè sufflato, margine dorsali anticè validè expanso et sufflato, ad umbones transversè inciso, super lamina transversas duplicatas expansas decumbente; ad terminum posticum subattenuatâ, epidermide nigricante, lobis quatuor inflatis, tum integumento cyathiformi expanso, ad latera emarginato.

This species is not divided by a central groove, but is reticulated by fine raised striæ crossing concentric knobbed ribs. The dorsal margins are swelled, the anterior swelled out and turned back over the umbones, where they are transversely divided and placed upon a transverse platform, which is wide and acuminate, and also divided in the centre. The cup is expanded, emarginated at the sides, and surmounted by four rounded and swelled lobes.

River Gambia. *Capt. Shaw*.

39. PHOLAS TRIDENS (pl. cvi. f. 60, 61). *Talena tridens*, *Gray*, *Brit. Mus. Cat.*

Ph. testâ clausâ, subovali, canali serrato divisâ; parte anticâ costatâ et lineatâ, margine ventrali inflato, cum margine dorsali confluyente; margine dorsali tumido, diviso, ad umbones transversè inciso; parte posticâ concentricè lineatâ, ad terminum tumis arcuatis duabus, ad marginem posticum integumento cyathiformi; cyatho intus callo tripartito.

Resembling *Ph. papyracea* (f. 66) in some degree, but more tapering posteriorly, and the cup is surmounted by an arcuated tumidity on each side, which within is marked by a tripartite callosity.

Monte Christo. *Cuming*.



40. PHOLAS QUADRA (pl. cvi. f. 62, 63), *Sowerby*, Pro. Zool. Soc., 1834.

Ph. testâ clausâ, subovali, canali serrato divisâ; parte anticâ costatâ et lineatâ, margine ventrali inflato, cum margine dorsali confluyente, margine dorsali tumido, diviso, ad umbones transversè inciso; parte posticâ concentricè striatâ, ad terminum tumis inflatis quatuor, et tubâ testaceâ plus minusve elongatâ.

Resembling *Ph. tridens* (f. 60, 61), but with the anterior dorsal margins more inflated, and at the posterior termination having a shelly tube surmounted by four horny tubercles.

Collected by Mr. Cuming on sand, in loose clay, at Monte Christo.

41. PHOLAS TUBIFER (pl. cvi. f. 64, 65), *Sowerby*, Pro. Zool. Soc., 1834.

Ph. testâ clausâ, subovali, canali serrato divisâ; parte anticâ costatâ et lineatâ, margine ventrali inflato, cum margine dorsali confluyente, margine dorsali tumido, diviso, ad umbones transversè inciso; parte posticâ concentricè striatâ; ad terminum spathulis duabus subquadratis, corneis, ad tubam testaceam plus minusve elongatam affixis.

Shell enclosed, divided; the front part costated and imbricated, and the test filling up the ventral gape confluent with the dorsal margin, which is reflected, tumid, and, at the umbones, separated into two small valve-like appendages. Next to the posterior end of the shell are a pair of horny flaps, which are fixed into a shelly tube. In *Ph. quadra* (f. 62) the tube is surmounted by four lobes instead of these flaps.

Collected by Mr. Cuming in decayed wood, ten fathoms deep, at the Bay of Caraccas, West Colombia.

42. PHOLAS MELANURA (pl. cvii. f. 78, 79), *Sowerby*, Pro. Zool. Soc., 1834.

Ph. testâ, clausâ, subovali, canali serrato divisâ; parte anticâ imbricatim costatâ, margine ventrali lævigato, inflato, dorso confluyente, margine dorsali validè reflexo et tumido, ad umbones laminis duabus subquadratis super laminas latas dispositis diviso; parte posticâ concentricè lyratâ, epidermide nigricante, ad terminum tumis corneis, inflatis, sub-reniformibus, duabus ad tubam testaceam affixis.

Much larger than *Ph. quadra*, and more boldly sculptured. The



divided plates of the umbonal ridge are placed upon a broad platform between them and the umbones. The postero-dorsal outline is inflated. The posterior part of the shell is covered by a blackish epidermis; at the termination, there are two horny swellings, each of them bilobed, surmounting a broad, black, shelly tube.

Found in hard clay and loose stones at Monte Christo. *Cuming*.

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## MONOGRAPH OF THE GENUS

### TRIOMPHALIA.\*

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*Fam. Pholadidæ.*

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*Char. Gen.* Molluscum acephalum terebrans. Testa bivalvis, ætate juniore hians, ætate maturâ clausa. Valvæ inæquales, utraque anticè laminâ testaceâ inflatâ ad marginem ventralem affixâ; internè cardine unidentato, sine processu; valva dextra posticè alteram valvam longitudine superans; valva sinistra posticè abbreviata, anticè laminâ ventrali alteram valvam involvente, ad dorsum nucleo quasi-umbonali incipiente.

A genus of boring Mollusca, with bivalve shells, allied to that group of *Pholades* which, when mature, have the ventral anterior hiatus of the valves closed by an expanded test. The valves are unequal, the right one being considerably produced at the posterior end, and the left much shorter at that end, but anteriorly extending its ventral covering so as to over-wrap that of the other.

\* *Τρία, tria*; *ὀμφάλιον, umbo*. Since writing the above, my attention has been directed to a genus of *Pholadidæ*, described under the name of *Pholadopsis* (Conrad), which may, by possibility, be identical with the one now proposed. The two most important characters, however, being omitted (namely, the third umbo, on which I found the name; and the absence of hinge processes, on which alone I justify the separation of the genus), and no reference being made to Quoy and Gaimard's figure of *Ph. globosa*, the description is not deemed sufficiently complete for identification.



On the dorsal edge, at the umbones, this testaceous covering seems to take its rise from an extra-umbonal nucleus. Hinge unidentate, without processes. The over-wrapping of the ventral covering of the right valve by that of the left, the umbo-like nucleus of the latter, and the compensating inequality of the valves at the posterior end, would be considered by many conchologists as forming sufficient grounds for separating this peculiarly constructed group from the genus *Pholas*. But were the separation to rest upon these characters alone, it might be said that, in consistency, the generic division of other groups of *Pholades*, proposed by authors, some of which present very interesting peculiarities, should also be adopted. But the groups named as genera, *Dactylus*, *Pholadidæa*, *Talona*, and *Jouanettia*, all exhibit one character in common, namely, the curved processes jutting from beneath the hinge, which in *Triumphalia* are wanting. The name is taken from the nucleus of the anterior lamina, which, overlying the two umbones, forms, as it were, a third.

1. TRIUMPHALIA GLOBOSA (pl. cvi. f. 54, 55). *Pholas globosa*, Quoy, Voy. Astrolabe.

T. testâ subovali, posticè subattenuatâ, anticè globosâ; valvis transversè dimidiatis: parte posticâ concentricè lyratâ, in medio costâ imbricatâ unâ; parte anticâ lyratâ, radiatim costis acutè imbricatis ornatâ; valvâ dextrâ productâ, sublinguiformi, dentibus acutis recurvis serratâ; nucleo laminæ terminalis valvæ sinistræ triangulari, striato, subcomplanato.

Rather oval, thin, with the valves transversely divided, with one radiating series of angular points in the middle of the posterior half, and eight or nine on the anterior portion, crossed by raised lines beautifully curved in the opposite direction. The right valve terminates angularly, and is serrated at the edges by curved, sharp teeth.

In soft stone at half-tide; Isle of Leyte, Philippines. *Cuming*.

2. TRIUMPHALIA PULCHERRIMA (pl. cvi. f. 58, 59), *Sowerby*, *junr.*, Pro. Zool. Soc., 1849.

T. testâ subovali, ventricosâ, posticè globosa, corrugatâ, anticè subattenuatâ; valvis transversè dimidiatis: parte posticâ costis distantibus concentricè lyratâ; parte anticâ lineis lyratâ, costis imbricatis radiatâ; valvâ dextrâ productâ, linguiformi, margine dentibus acutis crispatis serrato; nucleo laminæ terminalis valvæ sinistræ subtriangulari, rotundo, lineis elevatis lyrato.



This species is larger than *T. globosa* (f. 54, 55), the ventral covering being much more globose and rough; the supplementary nucleus is not so flat or so smooth; the points at the termination of the right valve are more strongly curved; the concentric ribs on the posterior part of the valves are more strongly defined, and they are not crossed by the oblique row of raised points which characterize those of the other species. Nothing can exceed the beauty of sculpture in both species.

West Colombia; soft stone, low water. *Cuming*.

3. *TRIUMPHALIA CUMINGII* (pl. cvi. f. 56, 57), *Sowerby, junr.*, Pro. Zool. Soc., 1849.

T. testâ rotundâ, crassâ; valvis posticè canali divisis, concentricè lineis elevatis lyratis, anticè costis minutis, serratis, radiatis; parte posticâ concentricè laminatâ; valvâ dextrâ posticè in lingulâ triangulari margine triplicato productâ; valvâ sinistrâ posticè brevissimâ, margine terminali circulari.

This shell would be completely spherical, but for the linguiform triplicate extension of the right valve; the left valve terminating in a circular margin, where the round part of the right meets it. The posterior part of the valves is very narrow, and strongly laminated; the anterior part is striated, and, near the termination, transversely ribbed. The covering test of the hiatus is beautifully rounded.

Coral rock, at low water; Isle of Zebu, Philippines. *Cuming*.

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## MONOGRAPH OF THE GENUS

### XYLOPHAGA.

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*Char. Gen.* Molluscum acephalum terebrans. Testa bivalvis, anticè angulatim hians, globosa, cardine edentulo, umbonibus valvis duabus parvis obtectis.

This genus, like *Triumphalia*, wants the subumbonal processes which are characteristic of *Pholas* and *Teredo*.



1. XYLOPHAGA GLOBOSA (pl. cviii. f. 101, 102), *Sowerby*,  
Pro. Zool. Soc., 1834.

X. testâ globosâ, in medio transversè costis duabus et arcâ planâ divisâ; parte posticâ subproductâ, margine dorsali subdelevato; parte anticâ angulatim striatâ, margine ventrali angulatim emarginato, angulo subobtusio; umbonibus rotundatis, laminis duabus cordiformibus super marginem dorsalem reflexum posticum positis.

If there be any real difference between this and the last species, it may consist in the posterior part of the valves in *X. dorsalis* being shorter and more elevated at the dorsal margin. The opening in the ventral margin seems also to be more acute in *X. dorsalis*.

Found in wood at a depth of sixty fathoms at Valparaiso.  
*Cuming*.

2. XYLOPHAGA DORSALIS (pl. cviii. f. 103, 104), *Turt.*, Brit.  
Biv. ii. f. 4, 5.

X. testâ globosâ, in medio transversè costis duabus et arcâ planâ divisâ; parte posticâ brevi, margine dorsali subelevato; parte anticâ epidermide indutâ, angulatim striatâ, margine ventrali angulatim emarginato, angulo subacuto; umbonibus rotundatis, laminis duabus cordiformibus super marginem dorsalem reflexum positis.

Rounded, divided in the centre of each valve by a smooth area between two ridges; the posterior part of the valves smooth, short, with the dorsal margin rather raised; the anterior part of the valves covered with a brownish epidermis, and angularly striated, with a large angular notch in the ventral margin. Two small heart-shaped dorsal plates are placed over the umbones upon the reflected anterior dorsal margin.

Great Britain.



# PHOLAS, TRIOMPHALIA,

AND

# XYLOPHAGA.

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N.B. The above, with few exceptions, are figured from specimens in Mr. Cuming's Collection.



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 tridens, 39, f. 60, 61.  
 truncata, 12, f. 29, 30.  
 tubifer, 41, f. 64, 65.

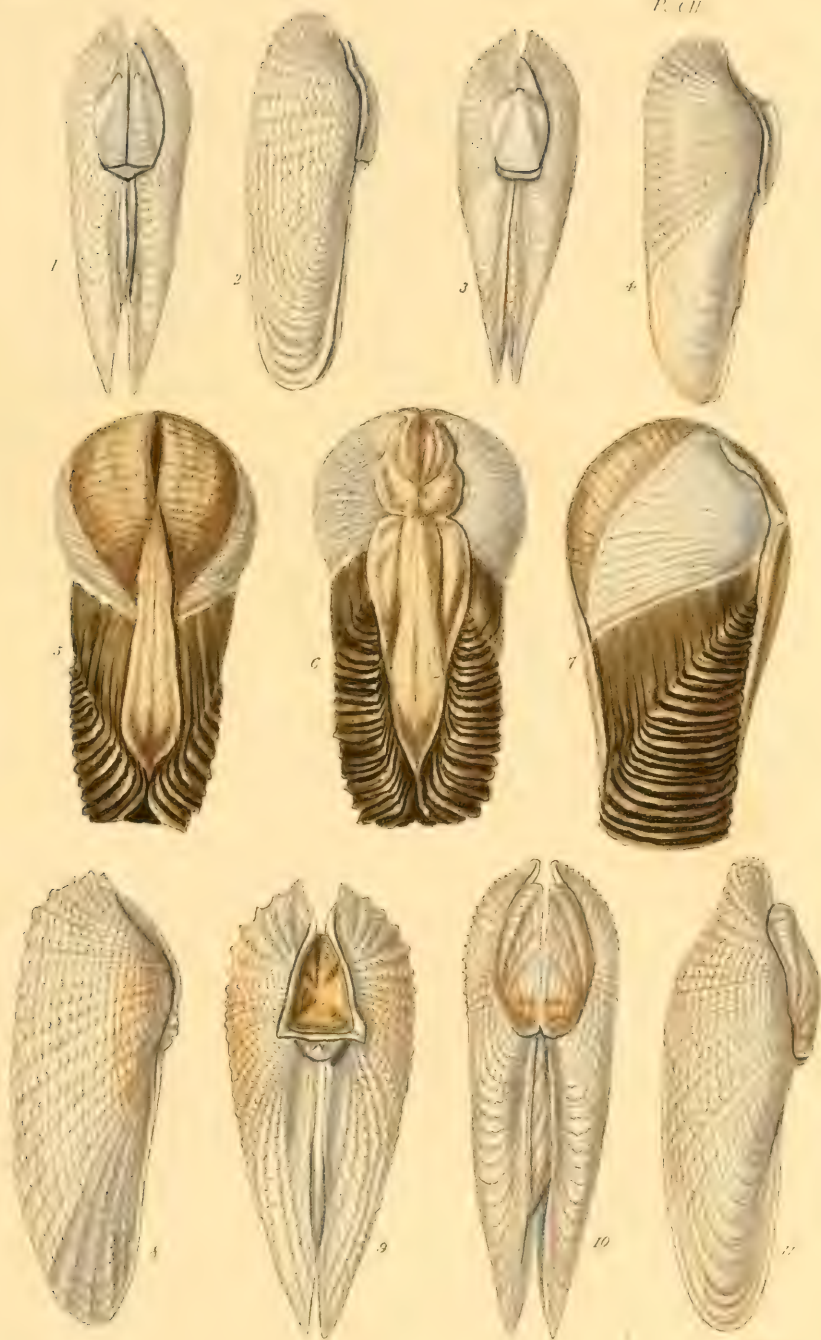






1/2 diam

P. CH



GBS Jan.









12



13



14



15



16



17



18



19



20



21



22



23





















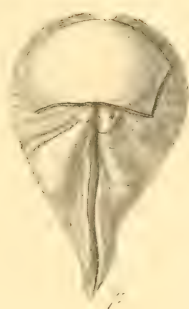


























## MONOGRAPH OF THE GENUS

### NERITINA.

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*Char. Gen.* Molluscum trachelipodium plerumque fluviatile. Testa plerumque tenuis, subglobosa, epidermide induta; dorso rotundato; ventro subplanulato; aperturâ semicirculari; labio interno ad marginem plerumque dentato, labio externo intus lævigato. Operculum semicirculare testaceum, unidentatum, nucleo subterminali.

A genus of spiral univalves, almost always found in fresh water, and covered with an epidermis; of a globose form, with a half-circular aperture, the inner edge of which is nearly straight. The inner lip is broad, and generally flat; the outer lip is always smooth. The operculum is semicircular, testaceous, with the nucleus near the lower end, and a tooth at the side, which fixes under the inner lip. Although the shells of this genus are nearly all fresh-water, comparatively thin, covered with a thickish epidermis, and smooth within the outer lip, while the *Neritæ* are marine, solid, with a very thin epidermis, and generally crenulated within the outer lip, the separation of the two genera may, perhaps, be regarded rather as one of convenience than as resting on any solid grounds. It will be found that many of the following species are described rather comparatively than positively: this is done from a conviction of the former mode being the best for facilitating their recognition.

1. *NERITINA OVALIS* (pl. cxiii. f. 121, 122), *Sowerby*, Pro. Zool. Soc., 1849.

N. testâ transversè ovatâ, extus nigrâ, intus cinereâ; spirâ nullâ, apice terminali, aperturâ ovali magnâ; labio externo confluyente, labio interno septiforme, complanato, aurantio, margine obscurissimè crenulato. Operculo nigro, radiato.

More regularly oval than the other patelliform species, with the apex quite terminal. Outside black, rather rough; inside blueish, excepting the columella, which is orange. It is flat, septiform, and very obscurely crenulated at the edge.

Mr. Cuming's collection.



2. *NERITINA DILATATA* (pl. cxiii. f. 123, 124, 125), *Brod.*, Zool. Pro., 1832; *Conch. Ill.* f. 11.

“*N. testâ ovato-truncatâ, dorso convexo, albido-fuscâ, lineis nigris angulatis reticulatâ; spirâ obliquè incurvâ; labro tenui supernè sub-biauriculato; labio subarcuato, denticulato.*”

Of a semiglobose form, flat at the side of the aperture, and convex outside; with the inner lip septiform, the outer lip widely auriculated at the extremities, and the spire nearly terminal. The outer surface is pale, reticulated with dark angulated lines.

Tahiti; adhering to stones in rivers. *Cuming.*

3. *NERITINA CARIOSÂ* (pl. cxiii. f. 126), *Gray*, Wood, Supp. t. 8. *Nerita*, f. 9. *N. Nuttali*, *Recluz.*

*N. testâ N. dilatata* simili, sed extûs nigrâ, aperturâ albâ, labio interno tumido, auriculis magis expansis.

Similar in form to *N. dilatata* (Sp. 2), but with the outer surface perfectly black, the aperture white, with the inner lip swelled, and the auricles, especially the upper one, more spread; operculum black. In the *Conch. Illust.*, at f. 5, this species was, by mistake, named *N. caffra*; but it was afterwards rectified in the catalogue of species.

Sandwich Islands; on stones in small streams.

4. *NERITINA SANDWICHENSIS* (pl. cxiii. f. 127, 128), *Deshayes*, *Lamarek*, Anim. s. vert. New Edit., vol. viii., p. 579. *N. Mauritii*, *Recluz*, MS.

*N. testâ N. dilatata* simili, sed magis depressâ, extûs nigrâ, intûs cinereâ; margine sinistro labii interni obliquè truncato.

Resembling *N. dilatata* (Sp. 2), but flatter, with the margin of the inner lip oblique, and the upper angle rather sharp. Inside blueish ash, outside black. The mistake committed in the *Conch. Ill.* (afterwards corrected), in naming fig. 5 *N. caffra*, instead of *N. cariosa*, led M. Deshayes to give the above name to our figure of the latter species. We imagine, however, from the description, that M. Deshayes had before him specimens of the shell to which we now apply it.

Sandwich Islands, and the Mauritius.

5. *NERITINA AURICULATA* (pl. cxiii. f. 129, 130), *Lam.* Anim. s. vert. E. M. p. 455. f. 6.

*N. testâ ovali, transversè substriatâ, dorso elevato, rotundato;*



aperturâ complanatâ; spirâ subobtectâ, subterminali; labio externo margine acuto, ad latera in auriculis angulatis expanso; labio interno septiformi, lævigato.

The back more rounded and elevated than in most of the patelliform species, with the apex nearly terminal, and the margin of the aperture spread at the juncture of the outer and inner lips into angular auricles. The species here figured agrees much better with the figure in the 'Encyclopédie Méthodique,' quoted by Lamarek, than the one figured in the Conch. Illust., which M. Deshayes has named *N. Lamarckii*.

New Holland.

6. NERITINA VESPERTINA (pl. cxiii. f. 131, 132), *Nuttall*.

N. testâ *N. auriculatæ* simili, sed dorso multum magis depresso, auriculis latè expansis.

Like *N. auriculata* (Sp. 5), but much more depressed, and having the auricles very broadly expanded.

"Sandwich Islands; on stones in small streams."

7. NERITINA TAHITENSIS (pl. cxiii. f. 133, 134), *Lesson*.

N. testâ *N. auriculatæ* simili, sed auriculis rotundatis.

Differing from *N. auriculata* (Sp. 5) in having the auricles rounded, so as to give the entire aperture a more oval form.

Tahiti; on stones in small streams. *Cuming*.

8. NERITINA BICANALICULATA (pl. cxiii. f. 135, 136, 137), *Recluz*, MS. Mus. Cum.

N. testâ *N. auriculatæ* simili, sed magis transversè elongata, magis patelliformi, columellâ septiformi magis elongatâ; apice terminali; auriculis canaliformibus.

More patelliform and depressed than *N. auriculata* (Sp. 5), with the apex quite terminal. The auricles at the juncture of the inner and outer lips are narrow and hollow.

"Island of Luzon; on stones in small ponds." *Cuming*.

9. NERITINA CREPIDULARIA (pl. cxiii. f. 139-144), *Lamarck*. *N. Touranensis*, *Souleyet*. *N. violacea*, *Gmel.*? *N. melanostoma*, *Troschel*, Phil. Abbild. und Besch. Conch., t. i. f. 13.

N. testâ transversè ovali, epidermide indutâ, plerumque pallidè fulvâ, fasciis et lineis fuscis vel violaceis reticulatâ; spirâ brevissimâ, anfractu singulo suboblecto; aperturâ magnâ, carneolâ, vel violaceâ;



margine integro, ovali; labio externo crasso, expanso; labio interno crasso, septiformi, margine serrato.

Transversely oval, with the lips of the aperture confluent on one plane, and the columella septiform. The lips are thickened and expanded, and in some instances include the whole shell in their oval diameter. The general resemblance of this *Neritina* to a *Crepidula* is remarkable.

Ceylon; Bengal. Var. *N. Touranensis* is from Tourano.

10. *NERITINA SUBAURICULATA* (pl. cxiii. f. 138), *Recluz*, MS. Mus. Cum.

N. testâ *N. crepidulariæ* simili, sed labii interni margine sinistro in auriculam obtusam producto.

The inner lip is produced into an auricular angle at its upper junction with the outer lip. The shell, which has an ashy purple aperture, in other respects resembles *N. crepidularia* (Sp. 9).

On the trunks of the palms growing in brackish water on the Isle of Negroes. *Cuming*.

11. *NERITINA DEPRESSA* (pl. cxiii. f. 147, 148), *Benson*.

N. testâ *N. crepidulariæ* simillimi, sed columellâ minus elevatâ, labio externo supernè subdepresso.

The specimens are generally of a more lengthened oval than those of *N. crepidularia* (Sp. 9), and the outline of the outer lip is more depressed at the upper part.

Calcutta.

12. *NERITINA SQUIJORENSIS* (pl. cxiii. f. 145, 146), *Recluz*, Pro. Zool. Soc., 1843, p. 198.

N. testâ *N. crepidulariæ* simili, sed transversè magis elongatâ, spirâ obtectâ, labio externo supernè depresso.

The left margin of the inner lip is not raised, as it is generally in advanced specimens of *N. crepidularia* (Sp. 9); the shell is longer, and the body-whorl behind the columella more contracted than in that species, to which, however, it bears a strong resemblance.

"Island of Siquijor, in a small stream." *Cuming*.

13. *NERITINA PULLIGERA* (pl. cxi. f. 65, 66), *Linn*. Syst. Nat.; *Lam*. Chemn. Conch. t. ix. pl. 124. f. 1078, 9.

N. testâ crassâ, transversè ovatâ, extûs epidermide crassâ nigrâ indutâ; spirâ nullâ; apice subdepressâ; aperturâ magnâ; labio



externo supernè extenso, ad apicem in costam elevatam producto, internè aurantio; labio interno cinereo, callo arcuato, in medio complanato, ad marginem leviter dentato, vix arcuato.

Transversely oval, with large aperture, and no spire, the outer lip elevated into a ridge above the apex. The inner lip is broad and flat, with an elevated callus on the body-whorl; its inner edge is scarcely curved, and very slightly dentated. The external surface is covered with a dark olive epidermis; the columella is ash-coloured, and the inside of the outer lip orange.

Molluccas; *Lam.* Cagayan, Misamis, Island of Mindinao, Philippines, on stones in a deep river; *Cuming.*

14. *NERITINA POWISSIANA* (pl. cxiii. f. 149), *Recluz*, MS. Mus. Cum.

N. testâ transversè ovatâ, lævigatâ, fasciis alternatim interruptis pictâ; spirâ celatâ; apice depressâ; aperturâ magnâ, albâ; labio externo supernè extenso, ad apicem in costam elevatam producto; labio interno complanato, margine lævi. Operculo rubro-nigricante.

A very pretty little shell, resembling *N. pulligera* in form, but narrower, with the outer surface marked by alternately interrupted bands of red and black; the mouth white, and the inner lip free from callus, and not dentated.

New Ireland; in a mountain stream, on stones. *Hinds.*

15. *NERITINA KNORRII* (pl. cxi. f. 78, pl. cxiii. f. 150), *Recluz*, Rev. Zool., 1841, p. 274.

N. testâ *N. pulligerae* simillimâ, sed transversè plus elongatâ, labio externo ad apicem decumbente.

Rather longer in the transversely oblique direction than *N. pulligera* (Sp. 13); and the upper part of the outer lip not raised into a ridge as in that species.

Island of Negroes; in a mountain stream, on stones. *Cuming.*

16. *NERITINA PETITII* (pl. cxi. f. 77), *Recluz*, Rev. Zool., 1841, p. 373.

N. testâ *N. pulligerae* simili, sed aperturâ fuscâ, margine supernè et internè rotundato.

Similar to *N. pulligera* (Sp. 13), but the edge of the aperture rounded and confluent; the mouth is deep, and of a brown colour.

Island of Mindinao, Philippines; on stones in a deep river. *Cuming.*



17. *NERITINA BECKII* (pl. cix. f. 13), *Recluz*, *Rev. Zool.*, 1841, p. 275.

*N. testâ N. pulligerae* simili, sed nigrâ; labio externo ad apicem decumbente, labio interno subconvexo.

Resembling *N. pulligera* and *N. Knorrii*, but differing from the former in the absence of the raised ridge on the apex, and from both in the columella being rather convex. The outside is black, and the margin of the outer lip is banded with deep orange.

18. *NERITINA CANALIS* (pl. cxi. f. 75, 76), *Sowerby, senr.*, *Tank. Cat. no. 1094. Conch. Ill. f. 22.*

“*N. testâ* ovatâ; spirâ brevissimâ, obtectâ; labio externo in canalem ad sinistram inclinatam producto; labio columellari aurantiaco, obsoletè subdenticulato; epidermide nigerrimâ.”

Of the same form as *N. pulligera*, but the left side of the inner lip not at all callous. The epidermis is very thick and black; there is a curve in the upper part of the outer lip, which is raised into a ridge at the apex; there is a groove between the outer lip and the upper part of the columella.

Tahiti; on stones in a rivulet. *Cuming.*

19. *NERITINA BRUGUIERI* (pl. cxiv. f. 159), *Recluz*, *MS. Mus. Cum.*

*N. testâ N. canali* simillimâ, sed transversè magis elongatâ; labio externo supernè undato, ad apicem decumbente.

Longer in the transversely oblique direction than *N. canali*; the upper margin of the outer lip has a sinus or undulation, as in that species, but is not raised in a ridge on the apex.

New Ireland; on small stones in a rivulet. *Hinds.*

20. *NERITINA ASPERULATA* (pl. cxiv. f. 160, 161), *Recluz.*

*N. testâ* transversè ovali, scabrosâ, epidermide crassâ, fuscâ, indutâ; spirâ complanatâ, sublaterali, anfractu singulo ad suturam carinato; aperturâ magnâ, pallidè aurantiâ; labio externo intus incrassato; labio interno septiforme, complanato, margine edentulo.

Transversely oval, finely scabrous, covered with a thick brown epidermis; with the spire flattened and lateral, consisting of one whorl, which is keeled at the suture. The aperture is large, of a pale orange colour, with the outer lip thickened inside, and the inner lip septiform, with a smooth edge.

“On small stones in a rivulet, Island of Luzon.” *Cuming.*



21. *NERITINA ACULEATA* (pl. cx. f. 32, 33, 34), *Gmelin*, 3686. *Chemn.* t. x. pl. 169. f. 1642. *N. sulcata*, *Nyst.*

*N. testâ* transversè ovali, extûs epidermide olivaceâ indutâ; costis transversis moniliformibus, nonnunquam spinosis, ornatâ; spirâ laterali, planâ, obtectâ; aperturâ magnâ, margini fulvâ, intûs cœruleâ; labio externo laqueato, supernè obliquè extenso; labio interno subplanulato, purpureo, margine irregulariter dentato.

Of a hemispherical shape, the external surface covered by an olive-green epidermis, and having beaded ribs, upon which more or less rarely there are raised, sharp spines. The apex is small, lateral, and nearly hidden. The aperture is large; the columella septiform, purplish, and irregularly toothed.

Island of Sumatra.

22. *NERITINA SQUAMAPICTA* (pl. cxi. f. 79), *Recluz*, MS., Mus. Cum.

*N. testâ* crassâ, obliquè, transversè ovatâ, extûs lineis griseis squamiformibus per fascias tres pictâ, epidermide tenui olivaceâ indutâ; aperturâ ovali, albâ; labio externo supernè sinuato, ad apicem undatim extenso, spiram obtegente; columellâ complanatâ, dentatâ. Operculo griseo radiato, ad marginem aurantio.

More oblique and lengthened than *N. Petitii*, &c. The spire is hidden by the outer lip, which proceeds from it in a curved line, and is sinuated at the upper part. The inner lip is flat, toothed at the margin. The outside is marked by squamiform lines, shaded off at the back, and strengthened in three bands. The operculum is beautifully radiated with grey bands.

Island of Luzon; on stones in a rapid river. *Cuming*.

23. *NERITINA SANGUINEA* (pl. cxiv. f. 162), *Sowerby, junr.*, Pro. Zool. Soc., 1849.

*N. testâ* crassâ, transversè ovatâ, extûs lineis griseis squamiformibus, per fascias tres pictâ, epidermide tenui olivaceâ indutâ; aperturâ ovali, sanguineâ; labio externo supernè subsinuato, ad apicem extenso, spiram obtegente; columellâ complanatâ, margine lævi.

Resembling *N. squamapicta*, but with the upper part of the outer lip less sinuated, and the edge of the columella smooth. The outer lip and columella are of a reddish-brown colour.

New Ireland; on stones in mountain streams. *Hinds*.



24. *NERITINA MORIO* (pl. cxiv. f. 163), *Sowerby*, *Pro. Zool. Soc.*, 1832, p. 201.

“N. testâ subovali, transversim striatâ, atrâ; aperturâ pallescente; columellâ supernè emarginatâ, in medio denticulatâ. Long. 0° 7'; lat. 0° 75' poll. *Hab.*: ad Insulas Polynesias.”

Transversely oval and striated, black outside, pale fawn in the aperture. The spire, consisting of two or three whorls, is flat. The operculum is granulated. The teeth on the columella are very obtuse. Altogether, the shell has much more the appearance of a *Nerita* than that of a *Neritina*.

On coral reefs at Ducie's and Easter Islands, South Seas. *Cuming*.

25. *NERITINA LABIOSA* (pl. cxi. f. 80), *Sowerby*, *Conch. Ill.* f. 48.

N. testâ crassâ, transversè subovali, extûs epidermide viridi, lineis et maculis nigris pictâ, indutâ; spirâ depressâ; aperturâ fuscâ, magnâ, latâ, margine confluyente; columellâ recedente, obliquè complanatâ, margine dextro lævigato. Operculo carneolo, margine corneo.

Of the same principle in make, but not of an oval form, as in *N. Petittii*. The spire is very small, the aperture large, and its margin continuous on the same plane. The external surface is crossed by irregular fine striæ in both directions.

Island of Luzon, Philippines; on stones in a rapid river. *Cuming*.

26. *NERITINA FLUVIATILIS* (pl. cxv. f. 178–186), *Linn.* *Syst. Nat.* p. 1253, var. f. 80. *N. intexta*, *Villa*, f. 189. *N. zebrina*, *Recluz*, *Rev. Zool.*, 1841, p. 341. f. 178. *N. Polaponensis*, *Recluz*, MS., f. 184. *N. numidica*, *Recluz*, *Rev. Zool.*, 1841, p. 346. f. 179. *N. Hildreichii*, *Schwerzenb.*, f. 182. *N. mitreana*, *Recluz*, *Rev. Zool.*, 1842, p. 181. f. 183. *N. thermalis*, *Boubée*. *N. sardoa*; *N. trifasciata*, *Menke*.

N. testâ transversè elongatâ, lævigatâ, variè pictâ; spirâ parvâ, vix elevatâ; aperturâ magnâ, semilunari; labio interno lævi, subconcavo.

Generally much lengthened in the transversely oblique direction, with the body-whorl, and consequently the aperture, very large in proportion to the spire, which is small. The columella is septiform, slightly concave and smooth at the edge. It was not until



after the most anxious examination of numerous specimens that I concluded to unite the various synonyma above enumerated, to the description of this species. The British varieties are well known; of the foreign varieties, var. *Heildreichii* is found in the Lago di Garda, Italy; var. *zebrina*, at Montpellier; var. *Polapovensis*, at Morea; var. *numidica*, in the "Vallée de Tiri à Oray;" and several varieties are found in Sicily; var. *mittreana* is found in France; var. *thermalis* in hot springs in the Pyrenees; var. *sardoa* is from Sardinia; and var. *trifasciata* in the ditches at Milan.

27. *NERITINA TRANSVERSALIS* (pl. cxiv. f. 151, 152), *Ziegler*. Rosmasler, Icon. pl. 7. f. 121.

N. testâ *N. fluviatili* simili, sed magis ovali; labio interno subcalloso; colore cœruleo, trifasciato.

Of a more simply oval form, with generally a smaller spire, and the left edge of the inner lip slightly callous. The outer lip does not exhibit the same tendency to spread at the lower part. The colour is ashy, with three very obscure dark transverse bands. Operculum of a reddish colour.

28. *NERITINA SUCCINEA* (pl. cxiv. f. 153, 154), *Recluz*, Rev. Zool., 1841, p. 343.

N. testâ *N. fluviatili* simili, sed spirâ complanatâ; colore succineo.

A minute, amber-coloured shell, of the general form of *N. fluviatilis*, but with the spire flatter.

Guadaloupe.

29. *NERITINA MERIDIONALIS* (pl. cxv. f. 187-190), *Philippi*, Enum. Moll. Sicil. p. 159, no. 3. pl. ix. f. 13 var. N. inquinata, *Morelet*, var. f. 189. N. lutescens, var. N. Philippii, *Recluz*, var. N. Boetica, *Lam. Anim. s. Vert.* vi. p. 188. N. Moreleti, *Recluz*. N. elongatula, *Morelet*.

N. testâ transversè subelongatâ, lævi, variè pictâ vel nigrâ; spirâ exsertiusculâ; aperturâ semilunari; labio interno lævi, complanatâ; labio externo supernè subdeclivo.

Although some specimens of even the British variety of *N. fluviatilis* approach this species in form, yet the prevailing form of the two are different, this being less elongated, and having the upper part of the outer lip much more sloping. On examining a large number of specimens I fully concur with M. Philippi in uniting several of the above synonyma with this species; and I



also think that the others must be included, as the variations, even among specimens of the same varieties and localities, are almost infinite.

The principal varieties, and var. *N. Batica* (Lamarck), are Sicilian; var. *N. inquinata* is found at Estremadura; var. *N. lutescens*, at Cephalonia; and var. *N. Moreleti*, in Portugal.

30. NERITINA DANUBIENSIS (p. cxiv. f. 155, 156), *Sadler*, Sowerby's Conch. Illust., f. 47; var. f. 156. *N. serratilineata*, *Ziegler*.

*N. testâ N. fluviatili simili*, sed anfractu ultimo subquadrato, lineis angulatis longitudinaliter pictâ.

The specimens vary, but there is a greater tendency to angularity of outline, and the outer lip is not so much extended as in *N. fluviatilis*, with some forms of which, however, it is in close affinity. In the variety (f. 156) named *N. serratilineata*, *Ziegler*, from the Lago di Como, Italy, the linear markings are beautifully angulated, and in the original variety, from the Danube, they are more straightened.

31. NERITINA CARINATA (pl. cxiv. f. 157, 158), *Koch*.

*N. testâ N. Danubiensi simili*, sed ultimo anfractu superne carinato.

The angularity of outline observed in the typical variety of *N. Danubiensis* is increased in this species so as to form a keel on the upper part of the whorl. The markings are in a longitudinal direction, more or less angulated. The aperture tends to yellow.

32. NERITINA RETICULATA (pl. cxi. f. 74), *Sow. Pro. Zool. Soc.*, 1832; Conch. Ill. f. 2.

*N. testâ crassâ*, transversè ovali, striatâ, lineis nigris reticulatâ; spirâ brevi; aperturâ albâ, magnâ; labio externo crasso; labio interno angusto, margine obtusè dentato, in medio arcuato. Operculo nigro.

A much more solid shell than *N. fluviatilis*, &c., with the mouth not so large in proportion to the body. The outside is transversely striated, and marked with reticulated black lines. The inner lip is narrow, arcuated, with blunt teeth. The operculum black.

Lord Hood's Island, South Seas; on sand, brackish water. *Cuming*.



33. *NERITINA OBTUSA* (pl. cxi. f. 72, 73), *Benson*.

N. testâ transversè ovali, leviter striatâ, epidermide subviridi indutâ; spirâ depressâ, anfractibus duobus; aperturâ magnâ, subcinereâ; labio externo internè crassiusculo; labio interno complanato, recedente, margine sinistro obliquè acuto, margine dextro in medio subarcuato, subcrenulato. Operculo cinereo.

Transversely oval, slightly striated, covered with a dingy olive epidermis. The spire is rather flat, consisting of two whorls; the body-whorl and aperture is very large. The left margin of the columellar lip presents a sharp keel half-way up; the right margin slightly arcuated and crenulated in the centre. The inner edge of the outer lip is thickened inside.

Banks of the Ganges, Calcutta.

34. *NERITINA PANAYANA* (pl. cxv. f. 191).

N. testâ *N. obtusæ* simili, sed lineis griseis minutè angulatis pictâ; labio externo magis expanso; labio interno concavo, margine lævigato.

Differing from *N. obtusa* (Sp. 33) in the outer lip being more spread at the upper part, and in the columella being smooth at the edge and rather hollow. The outer surface is covered with zigzag lines.

River Dingle, Island of Panay; on small stones. *Cuming*.

35. *NERITINA DUBIA* (pl. cxi. f. 81-88), *Chemn. Conch.* 5. pl. 193. f. 2019, 2020. *N. reticulata*, *Quoy et Gaimard*. *N. zebra*, *Chemn.* t. ix. p. 69. pl. 124. f. 1380. *N. zebroides*, *Lesson*. *N. Philippinarum*, *Sowerby's Conch. Ill.* *N. fasciata*, *Lamarck*, *Sowerby, Conch. Ill.* f. 35. *N. bella*, *Busch*, *Phil. Abbild.* t. 1. f. 8.

N. testâ transversè subovali, subtenui, fuscâ vel pallidè fulvâ, fasciis et maculis nigris variè pictâ; spirâ rotundatâ, anfractibus tribus; aperturâ internè ad extremitates subcarinatâ; labio externo intus incrassato; labio interno complanato, lævi, plerumque fusco. Operculo griseo.

Rather oval transversely, rather thin, brown, with various black markings; spire rounded, with three whorls; aperture with a small raised edge within, at each extremity; and the inside of the outer lip with a slight thickening. The inner lip is flat and smooth.

River Pisag, Bay of Manilla; adhering to the piles of wharfs. *Cuming*.



36. *NERITINA CORNEA* (pl. cxi. f. 67, 70, 71), *Linn.*, Syst. Nat. xii. p. 1258. *N. amphibia*, *Lesson*, Voy. Coq. t. xi. 2me part. *N. ampullaria*, *Lesson*. *N. subsulcata*, *Sowerby*, Conch. Ill. f. 50. *N. Morio*, *Deshayes*, in Lamarek. *N. fasciata*, *Lam.*, Anim. s. vert. viii.

*N. testâ N. dubiæ* simillimâ, sed transversè subsulcatâ.

Differing from *N. dubia* in being sulcated.

Mr. Cuming took specimens from leaves of palms, twenty feet high, in woods, at Puerto Galero, Island of Mindoro.

37. *NERITINA SERRULATA* (pl. cxiv. f. 164), *Recluz*, in Cuming's Collection.

*N. testâ N. dubiæ* simillimâ, sed labio columellari dentato; colore nigro, lineis et punctis albis.

Resembling *N. dubia*, but with the edge of the columella dentated. The colour is black, with white lines and spots.

Cape Palmas, Sumatra; on stones in a river. *Cuming*.

38. *NERITINA APIATA* (pl. cxiv. f. 165), *Recluz*, MS. in Mus. Cuming.

*N. testâ N. dubiæ* simillimâ, sed spirâ magis productâ; columellâ obscure crenulatâ.

Like *N. dubia* (Sp. 35), but with the spire more produced, and the columella very obscurely crenulated.

Island of Negroes; on stones in a mountain stream. *Cuming*.

39. *NERITINA PIPERINA* (pl. cxiv. f. 166, 167), *Chemn.*, t. xi. p. 173. pl. 197. f. 1905-6.

*N. testâ* transversè ovali, glabrâ, epidermide tenui, subviridi indutâ, maculis trigonis nigris pictâ; aperturâ magnâ, fulvâ; labio externo intus incrassato, supernè obliquè extenso; labio interno in medio subtumido, margine dentato.

Transversely oval, shining, with a thin, greenish epidermis, and large three-cornered black spots on the outside; aperture large, yellow; outer lip extended at the upper part with an oblique undulation; inner lip slightly swelled in the centre, dentated at the edge. The elegant specimen of which we give a front view is in Mr. Hanley's collection.

Locality unknown.



40. *NERITINA GRANOSA* (pl. cxiv. f. 170, 171), *Sowerby*, Tank. Cat.; Conch. Ill. f. 6. *N. papillosa*, *Jay*, Cat. p. 117. t. 4. f. 11.

"*N. testâ rotundatâ, compressiusculâ, subalatâ, albâ, epidermide nigrâ indutâ, extûs granosâ, granis per series ordinatis; labii externi margine crenulato; subtûs planulatâ; labio columellari lato, aurantiaco, margine interno sinuato, edentulo.*"

A large round shell, flat in front, and rounded at the back, with the outer surface tuberculated, and covered with a thick black epidermis; the spire is lateral, and consists of scarcely more than one turn; the aperture large, greyish, crenulated at the margin, divided in the centre by a yellowish septiform columella, which is slightly rounded on the left side, and smooth and arcuated at the edge. Operculum reddish brown.

"From a fresh-water stream in one of the South Sea Islands," *Budgin*. Also in mountain streams, Sandwich Islands.

41. *NERITINA LATISSIMA* (pl. cxiv. f. 172, 173), *Broderip*, Zool. Proc.; Conch. Ill. f. 3, 16.

"*N. testâ rotundatâ, ventricosâ, striis longitudinalibus, minutis, creberrimis, fuscâ luteo maculatâ, maculis numerosissimis; labro dilatato latissimo, spiram longè prætereunte; labio crenulato, subluteo.*"

Remarkable for the manner in which the outer lip is spread out into a broad wing at each end. The outside is green or brownish, reticulated, and in some specimens banded with black; the columella is buff, half-moon-shaped, flattish, and obtusely crenulated at the edge. Operculum blackish, with a horny reddish margin.

Adhering to rocks in the river at Realeijos.

42. *NERITINA OWENIANA* (pl. cxiv. f. 168), *Gray*, Wood's Suppl. f. 8.

*N. testâ N. latissimæ* simillimâ, sed labio interno tumido, margine labii externi inferni recurvo.

Resembling *N. latissima*, but with the columella swelled out, and the inferior spreading of the outer lip turned backwards.

Fernando Po; on stones in small streams. *Frazer*.

43. *NERITINA INTERMEDIA* (pl. cxiv. f. 169, 174, 175, 176), *Sowerby, senr.*, Pro. Zool. Soc., 1832, p. 201. *N. globosa*, *Broderip*, et *N. tritonensis*, *Le Guillon*.

"*N. testâ suborbiculari, olivaceo-fuscâ, nigro reticulatâ; dorso subgibboso; labio externo intûs lævi, albicante; labio columellari sublavio, planulato, margine centrali ruguloso.*"



We cannot recognize any specific difference between *N. intermedia* and *N. globosa*, and both are so peculiarly formed as to present the idea of *N. latissima*, with the expansions only commencing their development.

On stones in a mountain stream in the Island of Lions, Bay of Monteja. Also in a rivulet at San Lucas, in the Gulf of Nocoya, Central America.

44. *NERITINA GUAYAQUILENSIS* (pl. cxiv. f. 177), *D'Orbigny*.

*N. testâ N. intermediae* simili, sed spirâ exertiusculâ; labio interno breviusculo, subtumido.

Resembling *N. intermedia*, but more globose, and with the inner lip shorter and tumid.

Realeijos, Guayaquil. *Cuming*.

45. *NERITINA PUNCTULATA* (pl. cxv. f. 192), *Lam.*, Anim. s. vert.; Conch. Ill. f. 21.

*N. testâ subglobosâ*, epidermide tenui indutâ, maculis subviridibus seriebus obliquis nigro marginatis pictâ; spirâ subcelatâ; apice rotundato; aperturâ magnâ; labio externo internè albo, margine supernè fluctuato, ad suturam extenso, canalem formante; labio interno subplanulato, fulvo, supernè angusto, margine in medio dentato.

Rather globose, with white spots, showing greenish through the thin epidermis, and margined with black lines; spire nearly hidden; apex of the shell rounded; aperture large; outer lip white within, with the margin curved at the extended upper part, so as to form a canal; inner lip nearly flat, yellowish, narrow at the upper part, broad below, dentated at the centre of the edge.

Jamaica; on stones in small rivers. *P. H. Gosse*.

46. *NERITINA AFRA* (pl. cxv. f. 193), *Sowerby*, Conch. Ill. f. 39. *N. Africana*, *Recluz*, Revue Zoologique.

*N. testâ N. punctulatae* simili, sed anfractu ultimo minori, apice angustatâ.

This species presents the idea of a specimen of *N. punctulata* taken in a soft state and pinched up at the apex, so as to narrow the upper part of the aperture, and make the body-whorl less in proportion to it.

Fernando Po. *Frazer*.



47. *NERITINA CASSICULUM* (pl. cxv. f. 194), *Sowerby*, *Conch. Illust.* f. 55.

N. testâ subglobosâ, epidermide viridi indutâ, maculis inæqualibus, nigro-lineatis, obscure triserialis; sub epidermide variegatâ; spirâ obtusâ, anfractibus subrotundatis quatuor; aperturâ semicirculari; labio externo supernè declivo, margine crassiusculo; labio interno aurantio, subtumido, margine minutè denticulato.

Of a globose form, slightly inclining to oval, with an olive-green epidermis, under which may be seen numerous black lines, angulated so as to leave white, triangular spots, which are larger in three bands across the shell; spire obtuse, consisting of four whorls; aperture semicircular, with the outer lip slightly thickened, and the columella inclining to orange, narrow, swelled, and minutely crenulated on its nearly straight edge.

Locality unknown.

48. *NERITINA TRISERIALIS* (pl. cxv. f. 195, 196), *Sowerby, junr.*, *Conch. Ill.* f. 60?

N. testâ subquadratâ, cinereâ, maculis albis nigro marginatis, præcipuè seriebus tribus variegatâ; spirâ planiusculâ, anfractibus angulatis; aperturâ albâ; labio externo subexpanso, supernè angulato; columellâ semilunari, subcomplanatâ, minutè crenulatâ dente unico obtuso.

Rather square, flattish in front, grey, with black-edged white spots, so arranged as to form three bands lighter than the rest of the shell; spire rather flat; whorls angulated above; aperture wide; columella dentated.

Locality unknown.

49. *NERITINA TRITONENSIS* (pl. cxv. f. 197, 198), *Le Guillon*, *Rev. Zool.*, 1841, p. 345. N. *Dringii*, *Recluz*, MS.

N. testâ obliquè ovali, glabrâ, viridi vel rubescente, fasciis et punctis luteis variè pictâ; spirâ parvâ, anfractibus declivis tribus; aperturâ cinereâ; labio externo ad spiram declivo; columellâ crenulatâ et bidentatâ.

More oval longitudinally than *N. Sowerbii*, with the outer lip more sloped at the upper part. Of the smaller specimens named *N. Dringii*, in Mr. Cuming's collection, by M. Recluz, one is transversely banded, and another longitudinally striped.

New Ireland, *R. B. Hinds, Esq.*, *R.N.* Var. *N. Dringii*, Hanover Bay, North Australia, by *J. E. Dring, Esq.*, *R.N.*



50. *NERITINA SANDALINA* (pl. cxv. f. 199), *Recluz*, *Rev. Zool.*, 1842, p. 76.

"N. testâ semiglobosâ, interdum subovatâ, subsuturâ compresso-strangulatâ, fusco-nigrâ tenuiter striatâ; apice convexo-obtusâ; aperturâ albido-lutescente; labio plano, margine vix arcuato et obsoletè denticulato; labro patulo, supernè depresso, lineâ nigrâ marginato."

Of a semiglobose form, with the whorls rather depressed near the suture; the aperture wide, with the upper part of the outer lip extended towards the spire; inner lip very slightly curved and obsoletely dented.

Sandal Bay; on stones in mountain streams.

51. *NERITINA PERROTETIANA* (pl. cxv. f. 200, 201), *Recluz*, *Rev. Zool.*, 1841, p. 337.

"N. testâ ovatâ, semiglobosâ, fusco-nigricante, tenuissimè striatâ; anfractibus tribus, ultimo supernè coarctato; spirâ brevi, convexâ, obtusâ; labio plano, albido, in medio vix arcuato obsoletèque crenato."

A small, black, semiglobose shell, with the spire nearly hidden; the aperture blueish, with a semicircular, flat, buffish columella.

"Sur les Monts Nielgherries, la côte de Malabar;" *Recluz*. Ceylon; *Dr. Grayham*.

52. *NERITINA LONGISPINA* (pl. cx. f. 62, 63), *Recluz*, *Rev. Zoologique*, 1841, p. 312. N. corona, *Lamarck*, *Anim. s. vert.*, Non Linnæus.

N. testâ obliquè ovali, lævi, epidermide nigrâ indutâ, obscurè nigro fasciatâ, spinis elongatis, nigris, recurvis coronatâ; aperturâ magnâ, margine posticè prominente, ad suturam subcanaliculato; labio interno planâ, aurantiâ, margine lævi, in medio emarginato; spirâ brevissimâ, anfractibus parvis, compressis, paucis, ultimâ maximâ posticè versus suturam subrotundatâ.

This common species, which is named in most cabinets *N. corona*, Linn., on the authority of Lamarck, does not in reality agree with the figures quoted by Linnæus, nor with the shells in his collection. It is large, obliquely oval, with a dark blackish brown epidermis, through which black bands are seen. The spines are long, and turned backwards. The aperture is large, the inner lip septiform and orange-coloured, without teeth.

On stones in small streams; Island of Rodriguez. *R. B. Hinds*.



53. *NERITINA SPINOSA* (pl. cx. f. 61, 64), *Budgin*, Sowerby, Tank. Cat., no. 1102.

*N. testâ N. longispinae* simili, sed spinis brevioribus, plus numerosis; anfractibus spiræ plus elevatis, ultimâ minùs expansâ; aperturâ anticè subangulatâ; epidermide pallidâ, striis nigris fasciatâ.

Like *N. longispina* (Sp. 52), but with shorter and more numerous spines; the whorls of the spire more elevated, the last whorl not quite so large; the aperture slightly angular anteriorly; the epidermis a pale olive-green, with very sharply marked black bands.

From Tahiti. *Cuming*.

54. *NERITINA RECLUZIANA* (pl. cx. f. 56, 57, 58), *Le Guillon*, Rev. Zool., 1841, p. 345.

*N. testâ* obliquè subovali, nigrâ, maculis luteis pictâ, spinis breviusculis recurvis coronatâ; spirâ brevi, anfractibus angulatis; aperturâ magnâ, albâ, subobliquâ; labio externo infernè subproducto, supernè ad suturam depresso; labio interno obliquo, subcomplanato, margine in medio arcuato, dentato.

The aperture is sometimes expanded so as render the whole figure as obliquely oval as *N. longispina*, but the whorl above the spiniferous angle is always more rounded; the columella is generally narrower, but in one specimen of the spineless variety it is broad and swelled; the outer surface is black, with orange spots.

On stones in small streams; New Ireland. *R. B. Hinds, Esq., R. N.*

55. *NERITINA CORONA* (pl. cx. f. 46-50; Var. *mutica*, pl. cix. f. 1, 2), *Linnæus*, Syst. Nat. 'Nerita,' no. 720. *N. montacuta, Recluz*, Zoological Proceedings, 1842, p. 174. *N. brevispina, Lam.*, Sowerby's Conch. Ill. f. 8, *a, b, c.*

*N. testâ* obliquè subquadratâ, longitudinaliter subplicitâ, epidermide tenui indutâ, fasciis et maculis variè pictâ; spirâ planiusculâ, anfractibus quatuor, supernè angulatis, ad angulum spinis attenuatis plus minusve recurvis coronatâ; aperturâ mediocri, plerumque albâ; labio externo infernè vix angulato; labio interno angusto, subcomplanato, margine in medio arcuato, supernè et in medio obtusè dentato.

Of a squarish form, externally plicated, and variously spotted or banded; spire flat, consisting of four whorls, which are angulated and coronated with middle-length, tapering spines; aperture middle-sized, with the outer lip simple, having a tendency, parti-



cularly when young, to be angulated at the lower part; columella obtusely dentated, having a sinus in the centre. The figures referred to, and the specimens in the Linnæan collection, point to this species as being the true *N. corona* of Linnæus.

Island of Burias, Philippines; on stones in small rivers. *Cuming*. The spineless specimen figured (pl. cix. f. 1, 2) is from Western Africa.

56. *NERITINA BREVISPIÑA* (pl. cx. f. 45, 51, 52), *Lamarck*, *Anim. s. vert.*, New Ed., vol. viii. p. 572.

*N. testâ N. coronæ* similimâ, sed spinis brevioribus, crassiusculis, truncatis; aperturâ magis contractâ; colore rubescente, lineis nigris et maculis albis pictâ.

A thicker shell than *N. corona* (Sp. 55), with the aperture smaller and yellowish; the spines thicker and truncated; the colour reddish, with black longitudinal lines, which are arcuated so as to leave small whitish spots.

Philippines. *Cuming*.

57. *NERITINA SUBGRANOSA* (pl. cx. f. 35-38), *Sowerby*, *Conch. Ill.* f. 44. *N. ruginosa*, *Recluz*, *Rev. Zool.*, 1841, p. 310.

*N. testâ N. coronæ* similimâ, sed sulcis longitudinalibus nigro et albo marginatis rugulatâ, subviridi, anfractibus ad suturam elevatis.

Resembling *N. corona* (Sp. 55), but with longitudinal fluctuating grooves, which are edged by black and white interrupted lines. The whorls are elevated at the suture. The spineless variety, f. 35, is the same as that figured for the species in *Conch. Ill.* f. 14.

58. *NERITINA ASPERSA* (pl. cx. f. 43, 44), *Recluz*, MS.

*N. testâ N. coronæ* simili, sed minutè rugulatâ, extùs nigrâ, punctis minutis albis sparsâ, internè subviridi, ad basin columellæ obliquè unicarinatâ; aperturâ infernè angulatâ.

Resembling *N. corona* (Sp. 55), but with the surface roughened by minute undulations, and an oblique keel behind the lower part of the columella. The colour is black, sprinkled with minute white specks outside, and greenish inside. The aperture is more decidedly angulated, especially when young, than *N. corona*. We have figured one specimen which has two rows of spines, some of them double: this is accidental.

Sandwich Islands. Mr. Cuming's Collection.



59. NERITINA OBSCURATA (pl. cix. f. 28, 29), *Recluz*, Rev. Zool., 1842, p. 183.

N. testâ *N. coronæ* simili, sed crassiore; epidermide crassâ, nigrâ vel fuscâ nigro bifasciatâ; labio externo ad suturam magis elevato, plicis longitudinalibus magis regularibus et distantibus.

A more solid and smooth shell than *N. coronæ* (Sp. 55), with the outer lip more turned up towards the suture, and the plicæ more regular, distant, and smooth.

Mindinao, Philippines. *Cuming*.

60. NERITINA SOULEYETANA (pl. cx. f. 59, 60), *Recluz*, Rev. Zool., 1842, p. 182.

“N. testâ ventricoso-globosâ, tenuiter striatâ, nitidâ, nigrâ, lineis longitudinalibus, sæpiùs undulatis, ornata; anfractibus tribus, ultimo supernè spinis maculatis instructo; spirâ prominulâ; apice decorticato; aperturâ rotundatâ, basi vix dilatâtâ, flavicante; labio angusto, plano, medio concavo, supernè calloso, anticè subrecto, unidentato et obsoletè ruguloso.”

I copy the description by *Recluz*, because the only specimen I have seen is young, and has but one spine. Although the shell seems to combine many characters of other spinose species, it does not seem exactly like any one of them.

From the Marquesas.

61. NERITINA BENGALENSIS (pl. cix. f. 30, 31), *Chemn.*, xi. pl. 197. f. 1911?

N. testâ globosâ, ponderosâ, lævi, epidermide fuscâ indutâ, maculis pallidis pictâ; spirâ subplanulatâ, pæne obtectâ, anfractu ultimo ad suturam nigro fasciato, supernè angulato, ad angulum plerumque brevispinoso; in medio ventricoso; labio externo supernè angulato, labio interno supernè calloso, infernè subplanulato; margine dentibus in medio quinque parvis, uno crasso obtuso, deinde supernè tribus parvis obtusis.

This species differs from others of the spinose section in having the spire nearly hidden, and being ventricose in the middle of the whorls. The angle is sometimes coronated with distant black spines. The shell is smooth, with large pale spots on a greenish ground, showing through a brownish epidermis.

Bengal.

62. NERITINA DIADEMA (pl. cx. f. 41, 42), *Recluz*, Revue Zoologique, 1841, p. 277.

N. testâ *N. coronæ* simili, sed lævigatâ.



Like *N. corona* (Sp. 55), but smooth.  
Philippines; on stones in small streams. *Cuming*.

63. *NERITINA SPINIFERA* (pl. cx. f. 53, 54), *Recluz*, *Revue Zoologique*, 1842, p. 183.

*N. testâ N. coronæ simili, sed lævigatâ, obliquè subelongatâ; spirâ subconicâ; colore rubescente, maculis albis trigonis seriatim obliquè pictâ.*

Smooth, and more oblique, with the spire more elevated, than in *N. corona* (Sp. 55). The spines are thinner. The painting consists of white angulated spots in obliquely crossed rows on an obscurely reddish ground.

Philippines. *Cuming*.

64. *NERITINA DONOVANA* (pl. cx. f. 39, 40), *Recluz*, MS.

*N. testâ N. coronæ simili, sed lævigatâ, longitudinaliter sub-ovali, spirâ elevatiusculâ; aperturâ supernè magis angulatâ; columellâ anticè unisulcatâ; colore rubescente, maculis albis trigonis seriatim positâ, seu viridi, lineis undulatis longitudinalibus.*

Smooth, and with a more conical spire than *N. corona* (Sp. 55), with the aperture angulated at the lower part; distinguished from *N. spinifera* (Sp. 63) by the latter character, and by a small semi-circular groove at the lower part of the columella.

Island of Guimaras; on stones in a small rivulet. *Cuming*.

65. *NERITINA INTERRUPTA* (pl. cix. f. 11, 12), *Recluz*, MS.

*N. testâ globoso-subquadratâ, pallidè luteâ, lævigatâ, lineis viridibus interruptis pictâ; apice obtusè conico; anfractibus tribus, supernè obliquè ad spiram elevatis; aperturâ obliquâ, mediocri; labio externo supernè obliquè extenso, infernè rotundato; columellâ angustâ, complanatâ, supernè callosâ; margine in medio emarginato, obtusè unidentato, et minutè crenulato. Variat fasciis luteis duabus.*

Of a globose, but slightly quadrate form, smooth, light yellowish, with green, interrupted, close lines; apex rather conical; aperture of middle size, with the columella rather narrow, flattish, but callous near the upper part; outer lip thin, raised obliquely towards the spire. I should not be surprised to see specimens of this with spines, as it has much of the character of the spiniferous species.

Island of Luzon; on stones in a rapid river. *Cuming*.



66. *NERITINA BICOLOR* (pl. cxv. f. 204), *Recluz*, Pro. Zool. Soc., 1843, p. 200.

*N. testâ N. interruptæ* simili, sed solidiore, lineis continuis, aperturâ albâ, columellâ tumidâ.

No essential difference can be traced between this species and *N. interrupta*, excepting that it is a more solid shell, and has the columella tumid. The aperture is white, and the greenish lines are less distinct, and not interrupted.

Island of Luzon; on stones in a mountain stream. *Cuming*.

67. *NERITINA SQUAMOSA* (pl. cix. f. 26, 27), *Recluz*, — ?

*N. testâ* obliquè subquadratâ, tuberculis trigonis luteis rugulatâ, inter tubercula rubrâ griseo trifasciatâ; spirâ exsertiusculâ, anfractibus angulatis, supernè subplanulatis; aperturâ obliquâ; labio externo subrotundato; columellâ albâ, margine crenulato, in medio dentibus magnis duobus obtusis. Operculo cinerascete.

Obliquely quadrate, with triangular yellow tubercles, reddish, with three blackish bands between the tubercles; the whorls are angulated, rather flat above the angles; the columella has two large, rather blunt teeth near the middle of the edge, with small crenulations between them.

Island of Negroes; on stones in a mountain stream. *Cuming*.

68. *NERITINA CIRCUMVOLUTA* (pl. cxv. f. 202, 203), *Recluz*. — ?

*N. testâ* globosâ, sublævigatâ, fulvâ, maculis minutis sparsâ, nigro trifasciatâ; spirâ parvâ, apice obtuso, anfractibus subrotundatis, ad suturam tumidis; aperturâ obliquâ, albidâ; labio interno subplanulato, supernè calloso, ad marginem dentibus duobus obtusis et crenulis minutis. Operculo nigro.

Of a roundish form, with very little of the spire visible; of a light brownish colour sprinkled with white and blackish spots, with three black bands, one at the suture, near which, when full-grown, the whorl is swelled; columella flattish, callous near the suture, with two blunt teeth, and minute crenulations on the margin.

Island of Negroes; on stones in a mountain stream. *Cuming*.

69. *NERITINA AVELLANA* (pl. cix. f. 9, 10), *Recluz*, Rev. Zool., 1842, p. 76.

“*N. testâ* subglobosâ, crassiusculâ, roseo-violaceâ, maculis albis anteriùs nigro marginatis, sagittatis, crebris, 3- seu 4-fasciatâ; suturâ lacteâ, maculis nigris arcuatis alternis latè cinctâ; spirâ



planulatâ; aperturâ albâ; labio plano, angusto, margine arcuato et ruguloso.”

Rather square, with the spire rather flattened, and the whorls obtusely angulated above; colour tending to rose, with white spots, black-edged, and the epidermis light green. It is quite possible that this may be a spineless variety of *N. crassispina*.

Philippine Islands. *Cuming*.

70. *NERITINA SOVERBIANA* (pl. cix. f. 5-8), *Recluz*, MS.

N. testâ *N. avellanae* simili, sed subplicatâ, variè pictâ; anfractibus vix angulatis, super angulum magis elevatis; labio externo declivo.

Not so square in form as *N. avellana*, with the upper part of the whorls more elevated, and the outer lip more sloping; the external surface is slightly plicated. On one specimen there are one or two spines.

Island of Luzon; on the stony bed of a small river. *Cuming*.

71. *NERITINA RUGATA* (pl. cix. f. 3, 4), *Recluz*, Rev. Zool., 1842, p. 75.

N. testâ obliquè subovali, nigrâ, tuberculatâ; spirâ celatâ, apici obtusâ; aperturâ albâ, obliquè subovali; labio externo rotundato, supernè declivo; labio interno, semilunari, subcomplanato, in medio ad marginem crenulato et bidentato.

Rather obliquely oval, black, tuberculated, with the spire concealed; aperture white, obliquely oval; outer lip rounded, sloping towards the spire; inner lip rather flat, dentated and crenulated at the edge.

Island of Negroes; in mountain streams. *Cuming*.

72. *NERITINA CELATA* (pl. cxv. f. 205), *Recluz*.

N. testâ *N. interruptæ* simili, sed solidiore; spirâ celatâ, anfractu viridi fasciato; aperturâ cinereâ.

More solid than *N. interrupta* (Sp. 65), and differing from *N. bicolor* (Sp. 66) in having the spire concealed by the last whorl, which is striped with green.

South Sea Islands.

73. *NERITINA SUBPUNCTATA* (pl. cxv. f. 206), *Recluz*, Pro. Zool. Soc., 1843, p. 199.

“N. testâ semiglobosâ, olivaceo-fuscâ, tenuiter rugatâ; rugis punctis nigrescentibus seriatis notatis; sub epidermide albâ, nigro reticulatâ; anfractu unico, supra medium anguloso; apice perfo-



rato; apertură extus subrotundată, intus albo-cinerascente; labio semilunari, plano, supernè calloso, margine in medio tenuiter arcuato et crenulato; dente cardinali majore, truncato."

M. Recluz, in describing this species, expresses a probability of its being a variety of his *N. bicolor*; if, however, our specimen is characteristic, it is much more quadrate than that species, having more of an angle at the upper part of the whorl; and there is a difference in the upper part of the outer lip, which, in *N. bicolor*, is more curved towards the suture.

"Sinait, province of North Ilocos, Island of Luzon; in a small mountain stream." *Cuming*.

74. *NERITINA OLIVACEA* (pl. cxv. f. 207, 208), *Guil.*, Rev. Zool., 1841, p. 344. *N. solida*, *Recluz*, —?

*N. testâ N. subpunctata* simili, sed obliquè magis elongatâ, columnellâ planiusculâ, apertură subquadratâ, epidermide olivaceâ vel nigrâ.

More lengthened in an oblique direction, and more quadrate, than *N. subpunctata*, with the columellar callosity near the suture scarcely prominent. The colour is even, of an olive-green, or, as in the variety named *N. solidum*, nearly black.

Island of Luzon; on stones in a rapid river. *Cuming*.

75. *NERITINA CHLOROSTOMA* (pl. cxv. f. 216), *Broderip*, Pro. Zool. Soc., 1832, p. 201.

"*N. testâ suborbiculari, ellipticâ, olivaceo-fuscâ, nigro reticulatâ, subfasciatâ; apertură intus flavâ; labii columellaris margine obtusè unidentatâ, rugulosâ.*"

Nearly orbicular, with the whorls slightly angulated, purplish or greyish, obscurely banded and reticulated with black; aperture yellow, with the outer lip obtusely angulated above; the columella narrow, slightly tumid near the juncture of the outer lip, with the margin crenulated, and one rather large blunt tooth near the centre.

Tahiti; at the mouth of a small stream, at times covered with salt water. *Cuming*.

76. *NERITINA MICHAUDII* (pl. cxii. f. 108, 109, and pl. cxv. f. 217, 218 \*), *Recluz*, Rev. Zool., 1841, p. 315.

"*N. testâ subglobosâ, tenui, olivaceo-fuscescente, lineolis nigres-*

\* Repeated in consequence of an oversight.



centibus angulato-flexuosis pictâ; spirâ erosâ, obliquissimâ; aperturâ rotundatâ, albido-cærulescente; labio angusto, planulato, in medio vix arcuato et crenulato; labro supernè subarcuato, anteriùs subtruncato.”

Of a globose form, thin, with zigzag lines on a greenish-brown ground; aperture rounded, with the inner lip narrow, scarcely arched in the middle, and crenulated.

Panamà. *Cuming.*

77. NERITINA PICTA (pl. cxvi. f. 267–269), *Sowerby, senr.*, Pro. Zool. Soc., 1832, p. 201.

“N. testâ subglobosâ, cinerascente, maculis, sphacelis vittisque diversimodò pictâ; labio interno castaneo.”

Subglobose, greyish, variously painted with black lines or reticulations and whitish spots. There is a peculiar enamel-like appearance about the external surface; the columella is invariably of a chestnut colour, rather swelled, and obscurely crenulated at the margin.

Panamà; on a mud-bank, partially overflowed with fresh water. *Cuming.*

78. NERITINA FABA (pl. cxv. f. 219–221), *Sow.*, Con. Ill. f. 10.

N. testâ subquadrato-globosâ, lævigata, rufescente, fasciis transversis nigris, vel fasciis obliquis viridibus vel violaceis, et interstitiis flavidis variè pictâ; spirâ parvâ, anfractu ultimo obtusè angulato; labio externo anticè subproducto, supernè subelevato; labio interno minutè crenulato, vix arcuato.

Resembling *N. picta*, but with the columella neither swelled nor of a chestnut colour, and the spire rather more hidden.

79. NERITINA PULCHELLA (pl. cxv. f. 209–211), *Recluz*, MS.

N. testâ *N. faba* simili, sed quasi-subcylindricâ, minutè pictâ; aperturâ subcontractâ.

There is a peculiar cylindrical character in the form of this species, and the aperture is, as it were, drawn in all round. We have varieties of a dark green, reddish, or brownish ground, minutely grained with white specks.

Island of Luzon; on stones in a small stream. *Cuming.*

80. NERITINA PUPA (pl. cxi. f. 68, 69, pl. cxv. f. 212), *Linn.* Syst. Nat. p. 1253. N. tristis, *D'Orbigny*, inclusa.

N. testâ obliquè ovali, lævi, albâ, lineis nigris longitudinalibus



strigatâ vel reticulatâ, vel nigrâ, punctis albis; spirâ exsertiusculâ, anfractibus supernè declivis; aperturâ plerumque luteâ, obliquâ; columellâ angustatâ, margine crenulato.

Resembling *N. faba* and *N. pulchella*; more obliquely oval, with the spire more produced, although obtuse; the aperture is rather narrow, yellow, with a narrow, flattish, dentated columella; external surface white, with black, angulated lines, or reticulated with black, or as in the variety named *N. tristis* by D'Orbigny.

West Indies.

81. NERITINA JORDANI (pl. cxv. f. 213-215), *Sow.*, *Conch. Illust.*, f. 49. *N. Elleppenensis*, *Recluz*.

*N.* testâ subglobosâ, lævi, nigrâ albo variegatâ, vel albâ lineis purpureis fluctuatis pictâ; spirâ exsertiusculâ, anfractu ultimo ad suturam subtumido, prope medium plus minusve contracto; aperturâ posticè subcontractâ, anticè subexpansâ; labio externo prope suturam subangulatim elevato.

Of a globose form, inclining to oval, with a tendency to contraction in the middle of the last whorl or nearer the upper part.

River Jordan.

82. NERITINA MACRI (pl. cxvi. f. 222), *Recluz*, MS.

*N.* testâ subovali, nigrâ; spirâ exsertiusculâ; aperturâ obliquâ, labio interno subtumido, griseo, lævi.

Resembling the darker variety of *N. Jordani*, but having no tendency to contract in the middle of the last whorl.

Asia Minor. *Capt. Spratt, R.N.*

83. NERITINA ARCTILINEATA (pl. cxvi. f. 223, 224), *Recluz*, MS.

*N.* testâ obliquè subovali, griseâ, lineis subpurpureis undulatis pictâ; spirâ parvâ; aperturâ subexpansâ; labio interno obliquo, aurantio, subplanulato, lævi.

Of an obliquely subovate form, grey, with purplish, undulated lines; spire short; aperture rather expanded; columella semicircular, flat, orange-coloured, smooth.

Locality unknown.

84. NERITINA ANALOTICA (pl. cxvi. f. 225, 226), *Recluz*, *Rev. Zool.*, 1841, p. 342.

“*N.* testâ subovatâ, violaceâ, tenuè striatâ; spirâ brevissimâ,



rotundato-obtusâ, apice minimo, laterali; labio subobliquo, albido-cærulescente, infernè dilatato, subconvexo, margine recto, acuto."

Of an oval form, violet, scarcely striated; spire short, rather obtuse; outer lip slightly obtuse, blueish within; columella semicircular, flattish, straight, and smooth. Some specimens, marked by M. Recluz as *N. Africana*, which are lineated with purple, but much worn, we take to be a variety of this.

Smyrna.

85. *NERITINA VIRIDIS* (pl. cxvi. f. 229, 230), *Linn.*, Syst. Nat. p. 1254.

*N. testâ* obliquè ovali, lævi, viridi, albo maculatâ; spirâ obtusâ; aperturâ ellipticâ, labio externo anticè producto; columellâ semicirculari, plerumque tumidâ; margine in medio crenulato et paululum arcuato.

A small, pea-green, smooth, obliquely oval shell, with the outer lip produced near the base, and the columella semicircular, generally swelled, slightly arcuated and crenulated in the centre.

Sicily, the Antilles, Guadaloupe, and Cuba.

86. *NERITINA RANGLIANA* (pl. cxvi. f. 227, 228), *Recluz*, Rev. Zool., 1841, p. 339. *N. viridis*, var. major, *Rang.* *N. pallida*, *Risso*.

*N. testâ N. viridi* simillimâ, sed anfractu ultimo supernè angulato, testâ plerumque majore, lineis albis et rubris seriatim variegatâ.

Differing from *N. viridis* in the angularity of the last whorl, and consequently of the outer lip at the upper part; the outer surface is ornamented by several series of red-edged white lines, which are largest above the angle.

Madagascar. *Recluz*. Dumaguete, Island of Negroes; on stones in a small stream. *Cuming*.

87. *NERITINA LUCTUOSA* (pl. cxvi. f. 231), *Recluz*, Rev. Zool., 1841, p. 317. *N. rarispira*, var. *Recluz?* *N. siderea*, *Gould*.

*N. parvâ*, nitidâ, subglobosâ, nigrâ; spirâ exsertiusculâ; aperturâ ellipticâ; columellâ angustatâ, luteâ, planâ.

A small, smooth, subglobose shell, with an obtuse, but slightly elevated spire, and a narrow, yellowish, flat columella, which is nearly straight and smooth at the edge, but has above the centre a rather prominent tooth.



88. *NERITINA RECLIVATA* (pl. cxvi. f. 240, 241), *Say* ———? *N. macrostoma*, *D'Orbigny*. *N. Floridana* (?), *Shuttleworth*.

*N. testâ* obliquè subconicâ, solidâ, lævi, subolivaceâ vel nigrescente, minutissimè nigro lineatâ; spirâ exsertiusculâ, apice obtuso, suturâ nigro lineatâ, anfractu ultimo infra medio ventricosus; aperturâ semicirculari, labio externo supernè declivo, infernè producto, ad juncturam recedente, intis incrassato; columellâ obliquè semicirculari, plerumque albido, validè omnino calloso, ad marginem in medio subarcuato, dentato.

Taking this as the type of a small series of species, which have at least one character in common, that is, the bulging out, as it were, of the lower part of the last whorl over the aperture, we shall point out wherein the succeeding species differ from it. The bulging out of the last whorl increases the appearance of receding in the outer lip, where it joins the body of the shell. This species is rather conical, with the spire somewhat produced, but obtuse; it is smooth, of a lighter or darker greenish colour, with very fine black undulating lines, and one spiral line at the suture; the outer lip is, as it were, pinched in near the suture and the lower junction, and is thickened near the edge. The columella is very tumid, generally slightly tinted with orange at the left margin, and obtusely dentated at the right.

Vera Cruz, Mexico; on stones in rivers.

89. *NERITINA VIRGINIA* (pl. cxvi. f. 232–239), *Linn.*, *Syst. Nat.*, p. 1254. no. 730. *N. Brasiliana*, *N. Leachii*, &c., *Recluz*.

*N. testâ* obliquè subconicâ, solidâ, lævi, coloribus diversis variè fasciatâ, punctatâ, lineatâ, fasciatâ vel reticulatâ: spirâ subconicâ, anfractibus anticè subgibbosis; aperturâ obliquâ, anticè subproductâ; columellâ gibbosâ, margine crenulato.

I cannot see any reason for changing the name of this well-known species, even if there should be some slight cause to doubt the correctness of the application which has been so generally adopted from Lamarek. The species of Linnæus were not generally well defined, and we may, therefore, well admit an identification which has been generally received, in the absence of proof positive to the contrary. Nor do I see the propriety of separating the varieties which have been labelled by M. Recluz in Mr. Cuming's collection with the names quoted above, unless, indeed, we were prepared to take every specimen and name it as a species: no two individuals being exactly alike. We might be almost disposed to include *N. reclivata* in this species, but the upper



part of the whorls being more conical, and the peculiarity of marking being constant in the former, we think it will always be recognized with facility. In the absence of any real definition of the word *species* as applied to shells, we should generally be guided in our divisions by the facility with which a specific distinction would be recognized.

West Indies, Brazil.

90. *NERITINA MERTONIANA* (pl. cxvi. f. 242-246), *Recluz*, Pro. Zool. Soc., 1843, p. 71. *N. Oualanensis*, *Lesson*. *N. nebulata*, *Recluz*.

*N. testâ N. Virginiae* simili, sed magis subglobosâ, anfractu ultimo supernè subangulato.

The variety, f. 246, *N. Oualanensis*, *Recluz*, is thinner and generally smaller than the other variety; the variety *N. nebulata*, *Recluz* (f. 243), is larger, and marked with scales as in *N. meleagris*, but we can only distinguish the three from *N. Virginia* by one character which they have in common, which is, that they are rather more globose, and have a very faint, rounded angle at the upper part of the whorls.

Var., f. 246, *Oualay*, Sandwich Islands, and Port Essington; f. 242, 4, 5, *N. Mertoniana*, Island of Negroes; on stones in a small stream; var. *N. nebulata*, ditto. *Cuming*.

91. *NERITINA LISTERI* (pl. cxvi. f. 249-251), *Pfeiffer*.

*N. testâ N. Virginiae* et *N. reclinatae* simili, sed multùm magis globosâ, spirâ planâ.

More globose than *N. Virginia* and *N. reclinata*, with the whorls of the spire not at all produced. Some varieties of *N. Virginia* occur which are almost equally globose; but in these the spire is more produced.

The large specimen, f. 249, is from Cuba; the other variety is from St. John's river, Nicaragua.

92. *NERITINA MELEAGRIS* (pl. cxvi. f. 252, 253), *Lamarck*, *Chemn.*, 124. f. *D. L.*

*N. testâ N. Virginiae* simili, sed magis globosâ, minùs obliquâ, spirâ subconicâ sed minùs productâ.

More globose and less oblique than *N. Virginia*; the spire, although conical, much more central, and less produced; the upper part of the last whorl being more elevated, but not so much



so as in *N. Mertoniana*. The markings are in scales. The spire is not so flat as in *N. Listeri*.

Honduras Bay. *Dyson*. Also Sumatra.

93. *NERITINA ANATENSIS* (pl. cxvi. f. 247, 248), *Recluz*, MS.

*N. testâ* obliquè ovali, tenui, fulvâ, lineis nigris undulatis obscure pictâ; spirâ subconicâ, anfractibus declivis, ultimo ad suturam subtumido, sub medio ventricoso; aperturâ subtrigonâ; labio externo supernè declivo, anticè producto; columellâ albâ, semicirculari, tumidâ.

Rather oval, but obliquely ventricose at the base, and tapering towards the spire, which is rather produced; the shell is thin, of a greyish brown colour, reticulated with black lines; the columella is white, semicircular, and swelled.

Portugal.

94. *NERITINA ADANSONIANA* (pl. cxvi. f. 254, 255), *Recluz*, *Rev. Zool.*, 1841, p. 313.

*N. testâ* *N. Anatensi* simili, sed crassiore, apice obtusiusculo, anfractibus ad suturam magis tumidis.

Like *N. Anatensis* (Sp. 93), but more obtuse, thicker, with the whorls more tumid near the suture.

Senegal.

95. *NERITINA GLABRATA* (pl. cxvi. f. 256-263), *Sowerby, junr.*, *Pro. Zool. Soc.*, 1850.

*N. testâ* parvâ, obliquè ovali, glabrâ, plerumque pallidè fulvâ, lineis fasciisque rubris vel nigris variè pictâ; spirâ obtusâ, apice obtuso, sublaterali, anfractibus vix duobus, ultimo supernè declivo, infernè obliquè subgibboso; aperturâ parvâ, semilunari, bicanaliculato; labio externo supernè declivo, infernè obliquè producto; columellâ expansâ, lævigatâ, rotundatâ, gibbosâ, albâ. Operculo parvo, corneo, subgriseo.

A beautiful little shining shell, variously banded, lineated, and spotted with white, black, and red, on a light fawn-coloured ground. It is remarkably oblique, with an obtuse spire of scarcely two whorls, and the aperture small, obliquely produced at the lower part; the columella is white, smooth, and gibbous, in expansion forming about three-fourths of a circle.

There are many specimens of this elegant and very distinct species in Mr. Cuming's Collection; but the locality is unknown.



96. *NERITINA RETICULARIS* (pl. cxvi. f. 264–266), *Sowerby*, Conch. Ill. f. 44. Sp. 51. Var. *N. capillulata*, *Gould*.

*N.* testâ subconicâ, lævi, pallidè fulvâ, rufescente, epidermide tenui, subviridi indutâ, lineis angulatis transversè reticulatâ; spirâ plerumque exsertiusculâ, apice subcomplanato, anfractu ultimo, supra suturam angulatim elevato, infra medium ventricosum; aperturâ subcontractâ, labio externo supernè declivo, infra medium producto, columellâ tumidâ, margine sublævigato.

The shell varies considerably in form, but the upper part of the last whorl is more or less obtusely angulated, so as to give a flatness to the apex of the spire; the apex is rather contracted at the suture, but produced at the lower part; the columella is very gibbose. Altogether the shell is less gradually sloped than *N. reclinata*, and the markings are less close and reticulated transversely. The variety named *N. capillulata* (f. 266) is generally shorter, and the markings less distinct.

Calcutta. Var. *N. capillulata*, Burmah.

97. *NERITINA LINEOLATA* (pl. cxii. f. 101, 102), *Lam.*, Anim. s. vert. Neritina, Sp. 14. *Enc. Met.*, pl. 455. f. 4, *a*, *b*, *Sowerby*, Conch. Ill., f. 37.

*N.* testâ solidâ, subglobosâ, lævi, epidermide subviridi indutâ, lineis elongatis nigris flexuosis pictâ; spirâ exsertiusculâ, anfractibus supernè declivis, infernè ventricosus; aperturâ albidâ, labio externo anticè rotundato; columellâ obliquâ, subgibbosâ, obscurissimè subcrenulatâ.

A thick, solid, subglobose, smooth shell, covered with an olive-green epidermis; the spire obtusely conical; the upper part of the whorls narrow, sloping, the lower part ventricose; the columella is thickened, very obscurely crenulated at the inner margin, very distinctly defined on the body-whorl. In the variety figured in the Conch. Illust., the black, longitudinal, fluctuated lines are narrower and more numerous than those in the other variety.

98. *NERITINA SOBRINA* (pl. cxii. f. 100), *Recluz*, MS. *N. Zebra*, *Sowerby*, Conch. Ill. f. 31, non *Lamarck*.

*N.* testâ *N. lineolata* similis, sed magis globosâ, spirâ magis obtusâ; labio interno minùs distincto, labio externo intùs incrassato.

More globose than *N. lineolata*, with the spire less produced; the markings are broad and angulated.



99. *NERITINA STRIOLATA* (pl. cxi. f. 98, 99), *Recluz*, MS.

N. testâ *N. lineolata* simili, sed magis globosâ, obscurissimè longitudinaliter striatâ; spirâ magis centrali, anfractibus supernè minùs declivis; columellâ validè crenulatâ; testâ pallidiore, lineis sparsis, interruptis.

More globose and less oblique than *N. lineolata* (Sp. 97), with the columella more decidedly crenulated. The longitudinal striæ are scarcely visible to the unassisted eye. The markings are minute, few, and interrupted.

100. *NERITINA GAGATES* (pl. cxii. f. 103, 104), *Lam., Sow.* Conch. Ill., f. 29.

N. testâ globosâ, solidâ, lævi, epidermide crassâ, nigrâ indutâ, sub epidermide angulatum nigro lineatâ; spirâ brevissimâ; aperturâ albâ, latâ; columellâ tumidâ, semilunari, margine vix crenulato.

Very globose, thick, smooth, covered with a thick, black epidermis, beneath which zigzag black markings may be seen. The aperture is wide, white, and the columella swelled, white, generally edged with pale orange. The specimen represented (f. 104) with a scarcely-formed epidermis, is in the collection of S. Hanley, Esq.

Island of Sumatra; on stones. *Cuming*.

101. *NERITINA CAFFRA* (pl. cxii. f. 111, 112), *Wood*, Suppl. pl. viii. f. 10.

N. testâ *N. Gagati* simili, sed spirâ conicâ, labio externo supernè declivo.

Resembling *N. Gagates* (Sp. 100), in some degree. This species has been confounded with it; but it is much more conical, and the upper part of the outer lip more sloping.

Mauritius.

102. *NERITINA SMITHII* (pl. cxii. f. 117, 118), *Gray*, *Sow.* Conch. Illust. f. 9. N. undata, *Deshayes*.

N. testâ globoso-subconicâ, crassâ, lævi, albâ, maculis et fasciis lineisque longitudinalibus, flexuosis, interruptis pictâ, epidermide tenui indutâ; spirâ conicâ, anfractibus supernè declivis, infernè rotundatis; aperturâ subobliquâ; labio externo intùs incrassato; columellâ tumidâ, fusco tinctâ, ad marginem denticulatâ, in medio denticulatâ. Opereulo nigro.

Of a more or less conical form, with the upper part of the



whorls gently sloped, thick, white, with strong black, longitudinal, undulating, and interrupted lines and bands; columella thick, with an orange brown tint near the outer edge, the inner edge toothed, with a short sinus in the centre; operculum black. Of the two specimens figured, one is more and the other less conical than the average.

Banks of the Ganges, Calcutta.

103. *NERITINA COMMUNIS* (pl. cix. f. 14-25), *Quoy et Gaim.* Voy. Astrol. N. elegantina, *Philippi*, Abbildungen, p. 25. t. 1. f. 3.

N. testâ ovali, subconicâ, *N. Smithii* simili, sed anfractibus minùs rotundatis, labio externo prope suturam elevato; columellâ minùs tumidâ, vix arcuatâ; epidermide tenuissimâ; testâ variè pictâ.

Of a more oval form than *N. Smithii*, with the slope of the spire more gradual; the columella is not nearly so gibbous, and scarcely arched; the outer lip has a slight elevation near the suture, is thinner and rather more expanded; the external surface is variously painted.

Island of Siquijor, Philippines; on stones in a small stream. *Cuming*.

104. *NERITINA PLUMBEA* (pl. cxii. f. 119, 120), *Recluz*, MS. N. Nux, *Brod.*?

N. testâ *N. communis* simili, sed magis globosâ; aperturâ majore.

A more ventricose shell than *N. communis*, and with a larger aperture. The typical variety is of a leaden colour; another is of a lemon tint, and the other is olive, with dark broad bands.

Island of Bohal, Philippines. *Cuming*.

105. *NERITINA ZEBRA* (pl. cxii. f. 96, 97), *Lam.*, Anim. s. vert. Nerita, no. 4.

N. testâ globosâ, subconicâ, glabrâ, epidermide crassâ indutâ, fasciis perobliquis pictâ; aperturâ magnâ, labio externo intùs incrassato; columellâ subgibbosâ, in medio paululùm arcuatâ, denticulatâ.

Of a subglobose form, with the spire inclining to conical, not very thick, covered with a rather thick epidermis, through which very oblique black bands are seen. The aperture is large; the outer lip thin near the edge, but thickened within; the columella of a dull smoky-brown colour, not much thickened, slightly arched in the centre of the edge, and denticulated.

Tahiti.



106. *NERITINA TURTONI* (pl. cxii. f. 92, 93), ———?

N. testâ *N. Zebrae* simili, sed anfractibus prope suturam depressis; columellâ complanatâ, castaneâ.

Resembling *N. Zebra*, but with the whorls rather depressed near the suture, and the columella rather flat, and of a chestnut colour.

New Ireland. *R. B. Hinds, Esq., R. N.*

107. *NERITINA TURRITA* (pl. cxii. f. 91, 113, 114), *Chemn.* ix. t. 124. f. 1085. N. strigilata, *Lam.* Var. (f. 91) *N. Royssiana*, *Recluz.*

N. testâ *N. Zebrae* similimâ, sed magis conicâ, spirâ magis exsertâ, labio interno tumido, carneolo.

Resembling *N. Zebra*, but with the spire more produced, and the inner lip more tumid. The variety (f. 91) named *N. Royssiana*, *Recluz*, and figured in the Conchological Illustrations as *N. strigilata* var., is smaller, and has the black markings very small and angulated.

Madagascar.

108. *NERITINA SEMICONICA* (pl. cxii. f. 116), *Lam., Anim. s. vert. Sow., Conch. Ill.* f. 23.

N. testâ *N. Zebrae* simili, sed magis conicâ, solidiore, labio interno tumido, carneolo; *N. turrita* simili, sed magis ovali, maculis nigris in fasciis tribus pictâ.

This is so distinctly recognizable as a species of Lamarck, that we do not push our scruples to the extreme against admitting a specification which has so little beyond arrangement of colour to sustain it. The shell is like *N. turrita*, but rather more solid, and has the slope of the spire more gradual. The three bands of dull grey are marked by angular black spots.

Banks of the Ganges, Calcutta.

109. *NERITINA PULCHRA* (pl. cxii. f. 89, 90), *Sow., Conch. Ill.* f. 59.

N. testâ *N. Zebrae* simili, sed columellâ subcomplanatâ, vix crenulatâ, fulvo tinctâ, epidermide translucidâ, rubro et nigro variè pictâ.

The columella is flattish, scarcely crenulated, with a touch of yellowish colour. Under the somewhat transparent epidermis may be seen a broad-meshed reticulation of red in two bands and black in three.

Panamâ. *Cuming.*



110. NERITINA ZICZAC (pl. cxii. f. 105, 106, 107, 110), *Lamarck*, Anim. s. vert. N. Coromandeliana, *Recluz*, Incl.

N. testâ *N. Zebra* simili, sed solidiore; columellâ magis tumidâ, epidermide tenui, lineis et fasciis obliquiis variè positis.

More solid than *N. Zebra*, with the columella more tumid. The black markings are very variously placed. The variety from Coromandel (f. 110) has angular spots placed diagonally. In the absence of certain identification, we follow Dr. Philippi, in applying the name to this species.

Tahiti, Manilla, and the Island of Luzon, Philippines. *Cuming*.

111. NERITINA CUVIERANA (pl. cxii. f. 94, 95), *Recluz*, Rev. Zool., 1841, p. 338.

N. testâ *N. Smithii* simili, sed aperturâ majore, anfractibus supernè elevatis; columellâ subcomplanatâ, rubro marginatâ; colore griseo maculato et nonnunquam fasciato.

Differing from *N. Smithii* in the largeness of the aperture, the flatness of the red-margined columella, and in the arrangement of colours; it approaches nearer to *N. communis*, from which it differs principally in the shape of the spire, the upper part of the whorls being depressed close to the suture, and then slightly elevated.

New Ireland. *R. B. Hinds*.

112. NERITINA CUMINGIANA (pl. cxii. f. 115), *Recluz*, Rev. Zool., 1842, p. 77.

N. testâ *N. turrita* simili, sed solidiore, longè magis conicâ, anfractibus quatuor validis, declivis.

Resembling *N. turrita* in the characters which distinguish that species from *N. Zebra*, and differing from it in being still more conical, having four deep and gradually increasing whorls. The shell is also more solid, and the epidermis thin.

Island of Siquijor; on stones in mountain streams. *Cuming*.

113. NERITINA ATERRIMA (pl. cxvi. f. 270), *Koch*, Phil. Abbild. t. I. f. 11.

N. testâ globoso-subconicâ, nigrâ; spirâ exsertiusculâ, anfractibus propè suturam subexcavatis; aperturâ obliquâ, albâ, labio interno subcomplanato, ad marginem in medio paululùm emarginato, minutè dentato; labio externo subtùs subproducto.

Rather nearly resembling *N. caffra* (Sp. 101), next to which it



should be placed; but with the columellar lip not at all tumid, the spire more produced, and having a much stronger excavation near the suture.

114. *NERITINA GUINERII* (pl. cxvi. f. 272), *Recluz*, MS.

N. testâ transversè subovali, solidâ, nigrâ, transversè striatâ; spirâ depressâ, apice planulato; aperturâ magnâ, flavidâ; labio interno planulato, minutè dentato; labio externo subexpanso.

Rather solid, black, transversely striated, of an oval form, with depressed spire, and should come near *N. Morio* (Sp. 24). The aperture is yellow, with the inner lip flat, the outer lip rather expanded.

115. *NERITINA LUGUBRIS* (pl. cxvi. f. 271), *Philippi*, *Abbildungen*, 1 band, 2 lief., p. 20. *Neritina*, pl. 1. f. 9.

N. testâ transversè subovali, nigrâ, lævi; spirâ depressâ, apice plano; aperturâ magnâ, cæruleâ; labio interno lævi, planulato; labio externo subexpanso.

Less solid than *N. Guinerii* (Sp. 114), and should be placed with it near *N. Morio* (Sp. 24). The aperture is blue, with the inner lip quite flat and smooth, and the outer lip expanded and slightly angular near the lower edge; the external surface is smooth and black.

Sandwich Islands. *Philippi*.

116. *NERITINA SOLIDISSIMA* (pl. cxvi. f. 273), *Sowerby*, *junr.*, *Pro. Zool. Soc.*, 1849.

N. testâ subglobosâ, solidâ, nigrâ, transversè striatâ; spirâ depressâ, apice planulato; aperturâ magnâ, albâ; labio interno planulato, margine recto, dentato; labio externo supernè et infernè expanso, subangulato, intùs incrassato.

This species presents the idea of *N. cariosa* (Sp. 3), in an early stage of growth before the full expansion of the outer lip; it is, however, a much more solid shell; the inner lip is flat, and the outer lip thickened within.



## NERITINA.

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(The Figure after each name is the number of the Species.)

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- 1, 2. *N. corona*, var., 55.  
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 5-8. — *Soverbiana*, 70.  
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- 68, 69. *N. pupa*, 80.  
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- 121, 122. *N. ovalis*, 1.  
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     126. — *cariosa*, 3.  
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 131, 132. — *vespertina*, 6.  
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 139-144. — *crepidularia*, 9.  
 145, 146. — *Siquijorensis*, 12.  
 147, 148. — *depressa*, 11.  
     149. — *Powissiana*, 14.  
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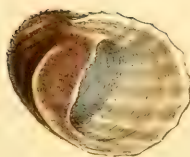








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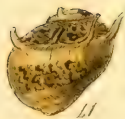
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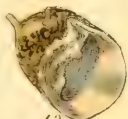
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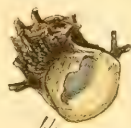
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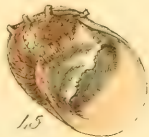
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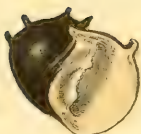
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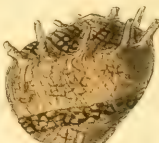
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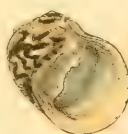
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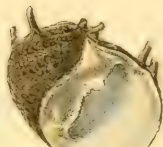
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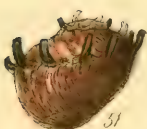
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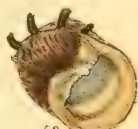
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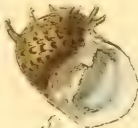
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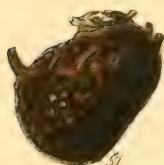
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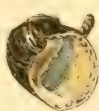
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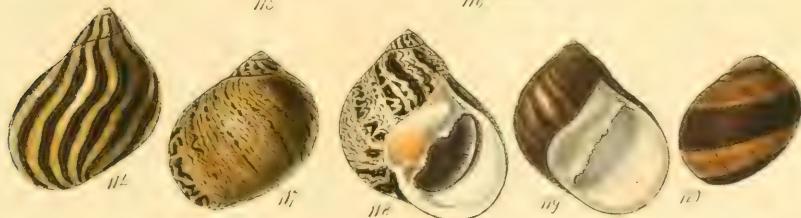
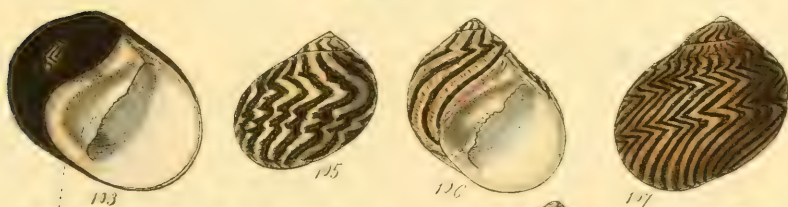
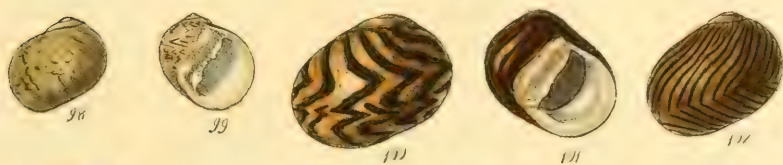
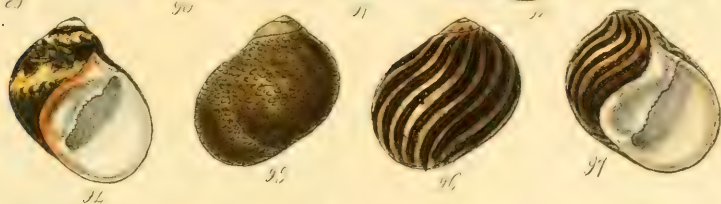








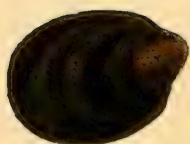




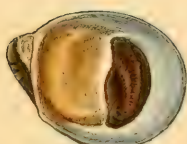




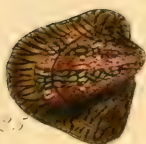




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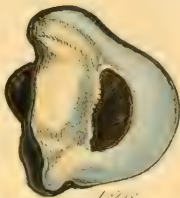
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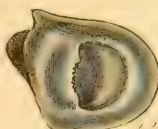
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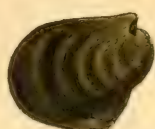
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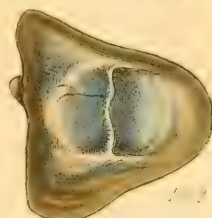
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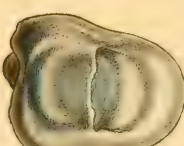
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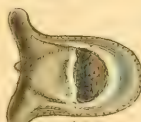
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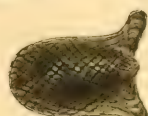
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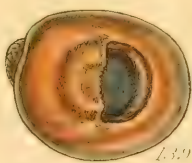
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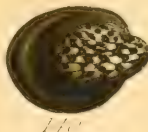
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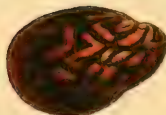
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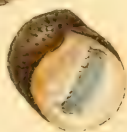
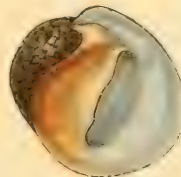
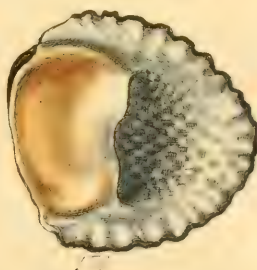
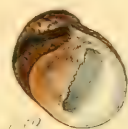
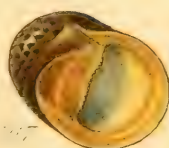
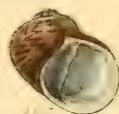
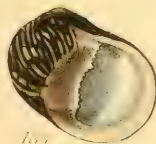
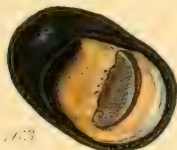
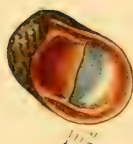
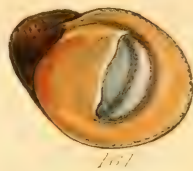
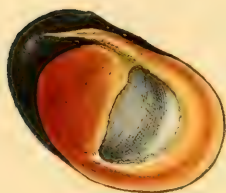


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# MONOGRAPH OF THE GENUS

## NAVICELLA.

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*Fam. Neritacæ.*

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*Char. Gen.* Molluscum Trachelipodum fluviatile. Testa elliptica, supernè convexa, epidermide corneâ induta, apice prope marginem posticum incurvo; subtùs concava, labio interno septiformi. Operculum solidum, planum, radiatum, unidentatum.

A genus of Trachelipodous fluviatile mollusks, with the shell of an oval form, convex above, covered with a smooth epidermis, with the apex simple and placed at or near the posterior margin; concave beneath, with a laminated, septiform inner lip. Operculum shelly, rather quadrate, flat, radiating, and with generally a sharp tooth-like process at the side.

1. NAVICELLA PORCELLANA (pl. cxvii. f. 1, 2. pl. cxviii. *bis*. f. 43, 44). Patella porcellana, *Linn.* Syst. Nat. p. 1257. Nerita porcellana, *Chemn.* Conch. t. ix. p. 68. pl. 124. f. 1082. Patella Borbonica, *Vincent.* Septaria Borbonica, *Férussac.* Crepidula Borbonica, *De Roissy.* Navicella Perousii (N. elliptica, Quoy et Gaimard), *Recluz.* Navicella elliptica, *Lamarck, Sowerby, &c.*

N. testâ ovali, validè convexâ, sub epidermide variè nigro fasciatâ vel reticulatâ; apice recto, marginem paululum superante; labio interno subangustato, margine recto; operculo subquadrato, brevi.

Of the typical oval form, variously marked with black under a transparent epidermis, very convex, with the apex nearly straight, and slightly going beyond the margin. The septum is rather narrow, with the edge nearly straight, and the operculum is of a rather square form.

The Bourbon Isles, the Mauritius, and Madagascar.

2. NAVICELLA MACROCEPHALA (pl. cxvii. f. 4, 5), *Le Guillon*, Rev. Zool. 1841, p. 374.

N. testâ subelongatâ, depressâ, sub epidermide nigro divarica-



tim strigilatâ et reticulatâ; apice decumbente, longè marginem posticum superante; labio interno latiusculo, margine arcuato; operculo subelongato, dente elongato.

More elongated than *N. depressa*, and having the apex produced very much beyond the margin; the septum is rather broader and arched at the edge; the operculum is rather longer.

Lebouka, Feejee Islands. *M. Farges*.

3. NAVICELLA LUZONICA (pl. cxvii. f. 6, 7), *Recluz*, Rev. Zool. 1841, p. 376.

*N.* testâ oblongâ, validè convexâ, immaculatâ; apice decumbente, longè marginem posticum superante; labio interno lato, margine recto.

Oblong, and with a large apex as in *N. macrocephala*, but much more convex and destitute of markings, and the septum nearly straight at the edge.

Island of Luzon; *Souleyet*. On stones in rivers; Islands of Panay and Mindinao, Philippines; *Cuming*.

4. NAVICELLA DEPRESSA (pl. cxvii. f. 8, 9, 10), *Lesson*, Voy. de la Coquille, p. 368. Var. *N. zebra*, *Lesson*.

*N.* testâ ovali, depressâ, sub epidermide nigro divaricatim strigilatâ; apice recto, marginem tegente; labio interno subangustato, margine recto; operculo subquadrato, brevi.

Although the convex side of this species is much less elevated than in *N. porcellana*, and the apex less prominent, I have much hesitation in admitting the validity of the distinction.

New Guinea, New Holland, New Ireland; *Quoy et Gaimard*. Tahiti; *Cuming*.

5. NAVICELLA JANELLII (pl. cxvii. f. 11, 12, 13), *Recluz*, Rev. Zool. 1841, p. 376.

*N.* testâ ovali, validè convexâ, minutè concentricè striatâ, sub epidermide nigro lineatâ et reticulatâ; apice oblongo, valido, marginem superante; labio interno lato, plerumque aurantio, in medio paululum arcuato; operculo magno, griseo, prope dentem angulariter emarginato.

Differing from *N. porcellana* in having the apex more distinct, and decidedly curved upwards (holding the shell in a position analogous to that of a *Nerita* with the spire uppermost). The septum is also broader than in *N. porcellana*, and slightly arched in the



centre. The operculum is rather more oblong, and much more strongly lobed: it is generally of grey colour. The external surface is also very slightly striated in direction of the lines of growth.

On stones in a deep river, Island of Luzon, Philippines. *Cuming*.

6. NAVICELLA APIATA (pl. cxvii. f. 14, 15. pl. cxviii. *bis*. f. 39), *Le Guillon*, Rev. Zool. 1841, p. 376.

N. testâ rotundato-subtrigonâ, depressâ, extûs obscure nigro reticulatâ, epidermide fuscâ indutâ; apice decumbente, marginem superante; intûs cæruleâ, nonnunquam maculis nigris magnis lateralibus duabus; septo subtrigono; impressionibus muscularibus rectiusculis.

Much depressed and spread out at the sides, rather narrowed in front, so as to give a somewhat trigonal form to the shell. The septum is trigonal, and the muscular impressions straight and narrow.

Island of Bourbon.

7. NAVICELLA CUMINGIANA (pl. cxviii. f. 16, 17, 18), *Recluz*, Zool. Pro. 1842, p. 157.

N. testâ ovali, convexâ, sub epidermide concentricè nigro undatim fasciatâ; apice magno, marginem superante; labio interno in medio producto; operculo subovali, ad terminum bilobato; impressionibus muscularibus latis.

This species, with the form of *N. porcellana*, and the produced apex of *N. macrocephala* and *N. Luzonica*, is remarkable for the shape of the septum, which is curved outwards in the centre, somewhat in the form of a uvula; the operculum is also peculiar, being rather oval, with two equal lobes at the end.

Lebouka, Feejee Islands; *M. Farges*. Islands of Mindinao and Camanguing, Philippines; on stones in a mountain stream; *Cuming*.

8. NAVICELLA FREYCINETI (pl. cxviii. f. 19, 20), *Recluz*, Rev. Zool. 1841, p. 375.

N. testâ ovali, convexâ, sub epidermide angulatim lineatâ; apice magno, marginem superante; labio interno in medio producto, uvulæformi, quadrato; impressionibus muscularibus latissimis.

Resembling *N. Suffreni*, but having the septum still more strongly uvulæform and the produced part squared. The muscular



impressions, which in *N. Suffreni* are broad, are still more so in this species, leaving a very narrow slip of the inner surface of the shell between them.

9. NAVICELLA LINEATA (pl. cxviii. f. 21, 22, 23, 24, 25), *Lamarck*, Anim. sans vert. Septaria Navicula, *Férussac*.

*N. testâ* elongatâ, epidermide tenuissimâ, nigro vel rubro longitudinaliter fasciatâ seu reticulatâ, seu seriatim maculatâ; apice angusto, plerumque roseo, marginem vix superante; septo latiusculo, trigono, margine arcuato; operculo elongato, ad terminum acutè dentato, emarginato.

The most lengthened and narrow of all the species, with the apex narrow and protruding very slightly beyond the margin; the septum trigonal, and the operculum elongated. The colours, either red or black, are for the most part arranged in longitudinal lines or bands, but, in some varieties, reticulated.

Indian rivers; *Lamarck*. Var. f. 25, Botanic Gardens, Calcutta. Many varieties, from the Islands of Luzon and Mindinao, Philippines; *Cuming*.

10. NAVICELLA TESSELLATA (pl. cxviii. f. 26, 27, 28, pl. cxviii. bis. f. 48, 49), *Lam.*, Anim. s. vert. *N. Entrecastauxii*, (f. 34.) *Recluz*, Rev. Zool. 1841, p. 380.

*N. testâ* oblongâ, epidermide tenuissimâ, nigro vel rubro quadratim tessellatâ vel reticulatâ; apice vix marginem tegente; septo latiusculo, subconvexo, margine arcuato; operculo brevisculo.

Rather broader and more square than *N. lineata*, with the apex scarcely touching the edge, and not so much narrowed. The difference in the marking can scarcely be regarded as constant, although in this species there is a greater tendency to a tessellated form.

Ceylon (var. f. 25); *Mr. Middleton*. On stones in rivers; Islands of Luzon and Mindinao, Philippines; *Cuming*.

11. NAVICELLA CÆRULESCENS (pl. cxviii. f. 29, pl. cxviii. bis. f. 36, 37, 38), *Recluz*, MS.

*N. testâ* brevisculâ, subdepressâ, subquadratâ, cæruleâ, maculis nigris angulatis pictâ; margine apicem superante; septo angustissimo, arcuato.

Resembling *N. tessellata*, but with the septum extremely narrow and arched; the shell is also broader in proportion to its length.

Ganges River, Bengal; collected on stones by *Mr. Westerman*.



12. NAVICELLA SUBORBICULARIS (pl. cxviii. f. 30, 31, var. ? pl. cxvii. f. 3), *Sowerby, sen.*, Tank. Cat., Appendix, No. 1092.

N. testâ subrotundatâ, convexâ, griseo rufescente reticulatâ; apice rotundo, haud ad marginem extenso; aperturâ intus aurantiâ; septo angustato; operculo subquadrato, acutè unidentato.

Rather round in form, very convex, with a rounded apex not reaching the margin. The external surface is reticulated with reddish-grey lines; the inner part generally presents an orange tint under the septum; the septum is very narrow.

Timor; *Sowerby*. On stones in rivulets, Island of Johanna, Commoros; *Rev. W. Hennis*.

13. NAVICELLA CLYPEOLUM (pl. cxviii. f. 32, 33, 34, 35), *Recluz*, MS. N. atra, N. radiata, N. Recluzii, *Reeve*, Conchologia Systematica.

N. testâ ovali, minutissimè striatâ, subdepressâ, rubro nigroque variè tessellatâ et fasciatâ; apice parvo, margine apicem superante; septo semicirculari, subconvexo, margine paululùm arcuato; operculo subquadrato, acutissimè unidentato.

In this species the apex does not reach the margin, and the external surface is very finely striated. The shell is rather depressed and variously tessellated, sometimes in longitudinal bands, with red and black. The septum is rounded at the posterior, and very slightly arcuated at the anterior margin, with a tendency to convexity. The operculum is very strongly toothed.

On stones in rivers, in several of the Philippine Islands. *Cuming*.

14. NAVICELLA VARIABILIS (pl. cxviii. bis. f. 40, 41, 42), *Recluz*, Pro. Zool. Soc. 1842, p. 155.

N. testâ *N. Clypeolo* simili, sed margine vix expanso, apice marginali, dorso magis tumido.

Like *N. Clypeolum*, but with the margin less spread, the back higher, and the beak more curved, so as to reach the margin.

Mindinao, Philippines. *Cuming*.

15. NAVICELLA COOKII (pl. cxviii. bis. f. 45-47), *Recluz*, MS.

N. testa *N. suborbiculari* simili, sed magis ovali, apice marginem tegente, labio latiusculo, aurantio.

Like *N. suborbicularis*, but more oval; the apex bent down so as to reach the margin; the septum a little broader, and of a bright orange-colour.

One of the Commoro Islands (Johanna). *Rev. W. Hennis*.



## NAVICELLA.

### LIST OF FIGURES IN PLATES CXVII., CXVIII., and CXVIII. *bis*.

Fig.

- 1, 2. *N. porcellana*, *Linnaeus*, Sp. 1.  
 3. — *suborbicularis*, var. ?  
 4, 5. — *macrocephala*, *Le Guillon*, 2.  
 6, 7. — *Luzonica*, *Recluz*, 3.  
 8-10. — *depressa*, *Lesson*, 4.  
 11-13. — *Janellii*, *Recluz*, 5.  
 14, 15. — *apiata*, *Le Guillon*, 6.  
 16-18. — *Cumingiana*, *Recluz*, 7.  
 19, 20. — *Freycineti*, *Recluz*, 8.  
 21-25. — *lineata*, *Lamarck*, 9.  
 26-28. — *tessellata*, *Lamarck*, 10.  
 29. — *cærulescens*, *Recluz*, 11.  
 30, 31. — *suborbicularis*, *Sowerby*, 12.  
 32-35. — *Clypeolum*, *Recluz*, 13.  
 36-38. — *cærulescens*, *Recluz*, 11.  
 39. — *apiata*, var., *Le Guillon*, 6.  
 40-42. — *variabilis*, *Recluz*, 14.  
 43, 44. — *porcellana*, *Young*, 1.  
 45-47. — *Cookii*, *Recluz*, 15.

#### SPECIFIC SYNONYMA.

- elliptica*, *Lam.*, v. *porcellana*, Sp. 1.  
*Borbonica*, *St. Vincent*, v. *porcellana*, 1.  
*Perousii*, *Recluz*, v. *porcellana*, 1.  
*zebra*, *Lesson*, v. *depressa*, 4, f. 10.  
*Entrecastauxii*, *Recluz*, v. *tessellata*, 10, f. 48.  
*atra*, *Reeve*, v. *Clypeolum*, 13, f. 34.  
*radiata*, *Reeve*, v. *Clypeolum*, 13, f. 35.  
*Recluzii*, *Reeve*, v. *Clypeolum*, 13.

#### SPECIES UNIDENTIFIED.

- Bougainvillii*, *Recluz*, Rev. Zool. 1841, p. 374.  
*D'Urvillei*, *Recluz*, Rev. Zool. 1841, p. 378.  
*Sufireni*, *Recluz*, Rev. Zool. 1841, p. 374.













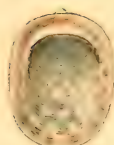








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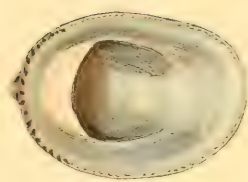
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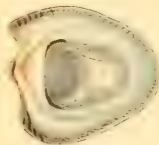
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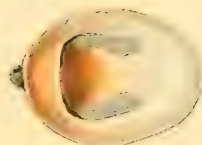
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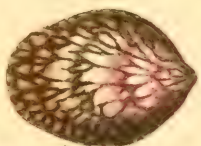
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## MONOGRAPH OF THE FAMILY

# BULLIDÆ.

By ARTHUR ADAMS, R.N., F.L.S.

[NOTE. The following generic divisions of the *Bullidæ*, by Arthur Adams, Esq., as founded upon a careful examination of the animals and shells, are here given, although not in accordance with the general plan of our work, because researches so useful ought not to be lost for want of a vehicle for their publication. At the same time, it will be observed that in enumerating the species of shells, the usual form is adopted, and the proposed genera only mentioned as subgenera. Collectors will thus have the opportunity of choosing their own mode of arrangement.]

### Fam. BULLIDÆ.

Head with tentacular lobes, often forming by their union a flattened cephalic disc. Gills on the right side of the back, covered by the mantle or by a shell. Foot more or less dilated at the sides into swimming lobes.

Shell none, internal, or external. Operculum none.

Genus 1. BULLINA, *Férussac*. BULLINULA, *Beck*. (*Bulla*, sp. 1-3. pl. cxx. f. 1-3.)

Animal ignotum.

Testa solida, ovata, umbilicata, transversè sulcata. Spira elevata. Labrum intus sulcatum. Labium sinuosum, anticè subtruncatum.

Animal unknown.

Shell solid, ovate, umbilicated, transversely grooved. Spire elevated. Outer lip internally grooved. Inner lip sinuous, anteriorly subtruncated.



Genus 2. *APLUSTRUM*, *Schumacher*. (Animal, pl. cxix. f. 1. Shells, *Bulla*, sp. 4, 5. pl. cxx. f. 4-7.)

Animal ut in *Hydatina*.

Testa globoso-ovalis; spira depresso-plana. Apertura oblonga, posticè haud coarctata, canali brevi submarginato; labium externum acutum; labium internum nullum. Columella prominens, involuta, tortilis, obliquè truncata, margine interno tenuissimo, subreplicato. Umbilicus nullus.

Animal as in *Hydatina*.

Shell globosely oval; spire depressly flattened. Aperture oblong, posteriorly slightly contracted, with a short submarginate canal; outer lip sharp, inner lip wanting. Columella prominent, involute, twisted, obliquely truncated; inner margin very thin, somewhat reflected. Umbilicus none.

Genus 3. *HYDATINA*, *Schumacher*. (Animal, pl. cxix. f. 2. Shells, *Bulla*, sp. 7-10. pl. cxx. f. 8-18.)

Caput appendicibus labialibus duabus bifidis; lobis tentacularibus duobus, acuminatis, auriculatis, posterioribus lanceolatis, sursum testam recurvatis; oculi minimi, nigri, ad basin internam eorum sessiles. Pallium internè tenue, membranaceum, externè crassum, carneum, triangulare, circa spiram convolutum. Pes magnus, tenuis, membranaceus, sursum testam recurvatus, anticè auriculatus, posticè rotundatus.

Testa ovali-globosa, valdè ventricosa; spira depressiuscula. Apertura ampla, posticè coarctata; labium externum tenue, acutum; labium internum tenuissimum, replicato-adnatum. Venter imperforatus, inflatus.

Head with two bifid labial appendages; tentacular lobes two, pointed, auriculate, posterior large, flattened, lanceolate, recurved over the shell; eyes small, black, and sessile at their inner bases. Mantle internally thin and membranous, externally thick, fleshy, triangular, curving round the spire. Foot large, thin, membranous, recurved over the shell, auriculate in front, rounded behind.

Shell ovately globose, very ventricose; spire somewhat depressed. Aperture wide, posteriorly contracted; outer lip thin, sharp; inner lip very thin, reflected over and adnate to the last whorl. Last whorl imperforate, inflated.

Genus 4. *TORNATINA*, *Adams*. (Animal, pl. cxix. f. 3. Shell, *Bulla*, sp. 11-26. pl. cxxi. f. 24-39.)

Caput subtrigonale, latum, anticè rotundatum, lateribus pro-



ductis in lobos triangulares depressos, oculis ad eorum basin externam. Pallium parte exteriori incrassatâ, tuberculis tribus instructâ, parte internâ tenui, subulatâ, in suturâ spiræ dispositâ. Pes brevis, linearis, anticè truncatus.

Testa cylindrica vel fusiformi; spira manifesta, apice papillato; sutura canaliculata; columella callosa, uniplicata.

Head subtrigonal, broad, anteriorly rounded, the sides produced into depressed triangular lobes, with the eyes at their outer base. Mantle with the outer part thickened and furnished with three tubercles; inner part thin, subulate, concealed in the channel of the spire. Foot short, linear, anteriorly truncated.

Shell cylindrical or fusiform, spire conspicuous, apex papillated, suture channelled, columella callous, with a single plait.

*Bullina*, Blainv. *Bullina*, sp., Macgill. *Tornatella*, sp., Kiener. *Bullina*, sp., Say. Tab. I. Fig. 6, animal; fig. 7, shell.

Genus 5. *UTRICULUS*, Brown. (Shells, sp. 27–31. pl. cxx. f. 19–23.)

Animal testâ reconditum, crassum, latum. Caput latum, breve, transversum; vibracula brevia, cornea, remota, lateralia; oculi postici, minuti, immersi, remoti; labia tumida buccam formant inflatam, verticalem, anticè impressam, medio os præbentem minutum. Solea testâ brevior, subquadrata, anticè dilatata, truncata, posticè fissurâ mediâ in lobos duos divisa. Margo pallii leviter incrassatus, aperturam lambens.

Testa bullacea, tenuis, ovata; apex truncatus; spira depressa.

Animal contained within the shell, thick, wide. Head wide, short, transverse; tentacles short, conical, wide apart, lateral; eyes posterior, minute, immersed, wide apart; lips tumid, forming an inflated mouth, impressed anteriorly. Foot shorter than the shell, subquadrate, anteriorly dilated, truncated, divided posteriorly by a median fissure into two lobes. Margin of the mantle slightly thickened, adhering to the aperture.

Shell small, oblong-ovate; outer lip nearly the whole length of the last whorl, and entire; spire very short, volutions prominent.

*Amphisphrya*, Lovén. *Diaphana*, Brown.

Genus 6. *AKERA*, Müller. (Animal, pl. cxix. f. 4. Shells, *Bulla*, sp. 32–37. pl. cxxi. f. 40–46.)

Animal.—Caput elongatum, anticè latum, bilobatum, posticè angustatum. Oculi nulli. Suturam spiræ depressæ canaliculatum explet pallium, connatum, cirrum emittens longum, tenuem, fili-



formem. Pes expansus, anticè angustatus, rotundatus, posticè latus, truncatus, lateribus valdè dilatatis, natantibus.

Testa subcylindrica, elastica, convoluta, ultimo anfractu in suturâ aliis soluto; spira distincta, anfractibus canaliculatis, vertice obtuso; apertura posticè angustata, anticè effusa.

Head elongated, wide and bifid anteriorly, narrow posteriorly. Eyes none. Mantle with a fimbriated edge projecting through the slit in the spire. Foot expanded, narrow and rounded anteriorly, posteriorly broad and truncated; the sides greatly dilated and forming swimming lobes.

Shell cylindrical, elastic, convoluted, the last whorl separated in the suture from the others; spire distinct, whorls channelled; apex obtuse; aperture narrow, posteriorly contracted, anteriorly effuse.

*Akera*, Müller (not Cuvier). *Eucampe*, Leach. *Vitrella*, Swainson.

Genus 7. SCAPHANDER, *Montfort*. (Animal, pl. cxix. f. 5. Shells, *Bulla*, sp. 38-42. pl. cxxi. f. 47-51.)

Animal ut in *Bulla*.

Testa ovalis; spira subocculta, truncata. Apertura amplissima, testâ longior; anticè valdè dilatata, integerrima; posticè coarctata, excisa; labium externum acutum. Margo cochleæ spiraliter manifestè convolutus usque ad originem spiræ.

Animal as in *Bulla*?

Shell oval; spire somewhat concealed, truncated. Aperture very wide, longer than the shell, anteriorly greatly dilated, entire, posteriorly contracted and channelled; outer lip acute. Margin of the shell distinctly spirally convoluted as far as the commencement of the spire.

*Arrula*, Schum. *Charta*, Martini. *Bullæa*, Roissy.

Genus 8. BULLA, *Klein*. (Animal, pl. cxix. f. 6. Shells, *Bulla*, sp. 43-55. pl. cxxii. and cxxiii. f. 59-80.)

Corpus oblongum. Caput latum depressum, lobis posticis duobus; oculi sessiles in medio capitis. Pallii dextra pars carnosâ, pedem longè superans; sinistra pars tenuis, adhærens. Pes brevis, subquadratus, lateribus anticè reflexis, anteriorem partem testæ vix tegentibus.

Testa ovato-globosa, convoluta; columella nulla; spira immersa, tubulosa; apertura longitudine testæ, margine externè acuto.

Body oblong. Head broad, depressed, with two posterior lobes.



Right part of the mantle fleshy, equalling in length the foot; the left part thin, adhering. Foot short, subquadrate, the sides anteriorly reflected and covering a small part of the fore part of the shell.

Shell ovately globose, convoluted; columella none; spire sunken and tubular; aperture the length of the shell, outer margin acute.

*Bullus*, Mont. *Vesica*, Swain. *Cymbium*, Adanson. *Rhizorus*, Montf.

Genus 9. *HAMINEA*, *Leach*. (Animal, pl. cxix. f. 7. Shells, *Bulla*, sp. 56-78. pl. cxxiv. f. 81-106.)

Corpus oblongum. Caput latum, depressum, elongatum, posticè bilobatum; oculi sessiles in medio capitis. Pallium parte externâ (vel dextrâ) valdè dilatâtâ, incrassatâ, truncatâ, posticè ultra testam extensâ. Pes brevis, subquadratus, alis duabus, magnis, natantibus, majorem partem conchæ obvelantibus.

Testa convoluta, cornea, tenuis, transversim striata, columellâ spirâque destituta.

Body oblong. Head broad, depressed, elongated, posteriorly bilobed; eyes sessile on the middle of the head. Mantle with the right or external part greatly dilated, thickened, truncated and extending beyond the shell. Foot short, subquadrate, with two large swimming lobes, which nearly cover the shell.

Shell convolute, thin, horny, transversely grooved, destitute of columella or spire.

Genus 10. *ATYS*, *Montfort*. (Animal, pl. cxix. f. 8. Shells, *Bulla*, sp. 79-100. pl. cxxiv. and cxxv. f. 107-131.)

Caput subtrigonale, depressum, posticè bilobatum; oculi subcutanei, in medio capitis. Pallium parte dextrâ incrassatâ, truncatâ, posticè ultra testam extensâ. Pes brevis, subquadratus, lateribus reflexis, anticè dilatatis, supra anteriorem partem conchæ dispositis.

Testa alba, solida, transversè striata; labrum posticè tortuosum, labium anticè plicatum vel subtruncatum.

Head subtrigonal, depressed, posteriorly bilobed; eyes subcutaneous, in the middle of the head. Mantle with the right margin thickened, truncated, and prolonged posteriorly beyond the shell. Foot with the sides dilated in front, reflexed and folded over the fore part of the shell.

Shell white, solid, colourless, transversely striated; outer lip



posteriorly twisted, inner lip ending anteriorly in a fold, tooth, or truncature.

*Naucum*, Schum. *Alicula*, Ehrenb. *Roxania*, Leach.

Genus 11. CYLICHNA, *Lovén*. (Shells, *Bulla*, sp. 101–119. pl. cxxv. f. 132–151.)

Animal breve, latum. Caput depressum, subquadratum, anticè truncatum; vibracula lata, deplanata, libera, recumbentia, transversa; oculi sub eorum basi immersi. Solea brevissima, ovato-quadrata. Pallium limbo incrassato, aperturam posticè claudente.

Testa cylindrica; spira nulla, vertice umbilicato; columella callosa, uniplicata.

Animal short, broad. Head depressed, subquadrate, anteriorly truncate; tentacles wide, flattened, free, recumbent, transverse; eyes immersed in their base. Foot very short, ovately quadrate. Mantle with the margin thickened posteriorly, closing the aperture.

Shell cylindrical; spire none; apex umbilicated; columella callous, with a single plait.

*Bullina*, Risso (not Férussac). *Cylindrella*, Swainson. *Volvaria*, Brown.

Genus 12. VOLVULA, *Adams*. (Shells, sp. 120–124. pl. cxxv. f. 152–156.)

Animal ignotum.

Testa subcylindrica, utrinque rostrata; spira occulta; apertura angusta; labium obsoletè uniplicatum.

Animal unknown.

Shell subcylindrical, beaked at both ends; spire concealed; aperture narrow; inner lip with a single obsolete fold.

This genus differs from *Volvaria* in the spire being entirely concealed, and having but a single fold on the fore part of the inner lip; and from *Ovulum* and *Hyalina* in the outer lip not being thickened or reflected externally.

Genus 13. LINTERIA, *Adams*. (Animal, pl. cxix. f. 9. Shells, *Bulla*, sp. 125–128. pl. cxxi. f. 52–55.)

Caput quadrilaterale, auriculis posterioribus nullis; oculi in mediâ superficie superiore capitis. Pallium inclusum, posticè in limbo crasso productum. Pes lateribus liberis in alis duabus expansis, posticè conjunctis, testam circumflexis.

Testa ovata, depressa; apertura supernè subcanaliculata; labium internum appendiculo calyciformi, intus spirali.



Head quadrilateral, without posterior auricles; eyes sessile on the middle of the upper surface of the head. Mantle included within the shell, ending posteriorly in a thickened lobe. Foot with the sides free, not connected to the head, enlarged in the form of wings, which unite behind, and cover a portion of the shell.

The side-edges of the foot being free and unconnected with the head, the form of the cephalic buckler, and the cup-shaped lamina arising from the apex, and ending on the columellar border of a depressed open shell, will distinguish this genus from the other groups of the family *Bullidæ*. All the species already known are amphibious in their habits.

Shell oval, depressed; aperture with a slight canal above; inner lip with a cup-shaped appendage, spiral within.

Genus 14. *CRYPTOPHTHALMUS*, *Ehrenberg*. (Animal, pl. cxix. f. 10. Shells, *Bulla*, sp. 129-131. pl. cxxi. f. 56-58.)

Corpus semicylindricum, formâ *Aplysiæ* tentaculis destitutæ. Caput depressum, carnosum, marginibus liberis; oculi minimi, sub capitis margine, laterales. Pallium concham basi tantum obtegit, maxima pars conchâ liberâ parum spirali obtegitur. Pes alis duabus lateralibus, reflexis, in dorso complicatis, totum corpus involventibus, et postremo corporis fine aperturam branchialem formantibus.

Testa fragilis, cornea, vix involuta, columellâ spirâque destituta; apertura ampla.

Body semicylindrical, in form of an *Aplysia* without tentacles. Head depressed, fleshy, the margins free; eyes small, lateral, under the margin of the head. Mantle covering only the base of the shell. Foot with two lateral wings reflected and folded on the back, involving the whole body, and forming a branchial aperture at the hind part of the body.

Shell fragile, horny, scarcely involute, destitute of columella and spire; aperture wide.

Genus 15. *PHANEROPHTHALMUS*, *Adams*. (Animal, pl. cxix. f. 11. Shell, sp. 132. pl. cxxv. f. 157, 158.)

Corpus elongatum, rotundatum. Caput in medio sulcatum, lobis rotundatis ad latera instructum, appendicibus posterioribus brevissimis; oculi parvi, nigri, distantes, superficie capitis positi. Pes lateribus super dorsum circumflexis.

Testa interna ovalis, tota aperta, nec convoluta, margine dextro prolongato, contorto, acuto.



Body elongated, rounded. Head grooved in the middle, with rounded lobes at the sides, posterior appendages very short; eyes on the upper surface of the head, small, black, and wide apart. Foot with the sides folded on the back, leaving between them an undulating fissure, a little sloping at the posterior part.

Shell concealed in the interior of the back above the gills, oval, entirely open, without more trace of a spire than a curved process at the left border; the right border prolonged into a point slightly turned on itself.

M. Quoy observes that the *Phanerophthalmus* both creeps and swims, and that the shell, white, and concealed in the interior of the back, above the gills, approaches more to the *Dolabellas* than to the *Bullas*. The position of the eyes at once distinguishes it from *Cryptophthalmus*, with which it shows the greatest affinity.

Genus 16. SORMETUS, *Adanson*. (Animal and shell, pl. cxix. f. 12.)

Caput non distinctum. Corpus carnosum, semicylindricum, lateribus valdè sulcatis.

Testa unguiformis, tenuis, pellucida, in parte posteriore disposita.

Head not distinct. Body fleshy, semicylindrical, the sides deeply grooved.

Shell unguiform, thin, transparent, covering the hind part of the animal.

*Sormetus Adansonii*, Blainv.

Genus 17. PHILINE, *Ascanias*. (Animal, pl. cxix. f. 13. Shell, sp. 133-139. pl. cxxv. f. 159-166.)

Corpus ovato-elongatum, convexiusculum. Caput elongatum, tentaculis oculisque nullis. Pes lobis lateralibus, margine crassiusculis, vix sursùm reflexis.

Testa occulta, in pallio supra branchia inclusa, tenuissima, uno latere partim et spiraliter convoluta, columellâ spirâque destituta; apertura amplissima, supernè dilatato-patula.

Body ovate-oblong, rather convex. Head elongated, without eyes or tentacles. Foot with the lateral lobes slightly thickened and reflected at the margin.

Shell concealed in the mantle, thin, somewhat involute on one side, destitute of distinct spire or columella; aperture large and wide.

*Phylina*, Lamarek. *Phyline*, Gray. *Lobaria*, Müller. *Bullæa*, Lamarek. *Anydala*, Planc. *Philine*, Lovén.



Genus 18. CHELIDONURA, *Adams*. (Animal, pl. cxix. f. 16. Shell, sp. 140. pl. cxxv. f. 167, 168.)

Caput fasciculis tribus sericibus anticè ornatum, posticè in lobo simplici lanceolato desinente; oculi? Pallium in filamentis longis duobus posticè productum. Pes amplus, anticè lateribus acuminatis, posticè rotundatus.

Testa interna, minima, fragilis, tota aperta, margine dextro plano, alato, posticè acuto.

Head with three small tufts of short silk in front, posteriorly not bifurcated, but terminated by a single lanceolate tongue, which is extended on the back. Mantle ending behind in two long filaments like the tail of a swallow. Foot elevated on each side, embracing the head and mantle, pointed at the sides in front, rounded behind. Gill behind, on the right side.

Shell hid in the thickness of the mantle, small, thin, very open, scarcely spiral, with the right border ending in a point.

M. Quoy observes that it swims by the aid of its mantle, which was the case with a beautiful species obtained by me, also in the Mauritius, but which became so mutilated as to afford but the information that the species belonged to this genus, and was distinct from *C. hirundinina*. The individual alluded to by M. Quoy, which "had the back crossed with white, and all the blue lines bordered with a line of gold," was probably a third species.

Genus 19. DORIDIUM. (Animal, pl. cxix. f. 14.)

Caput ovato-oblongum, anticè retusum. Corpus oblongum, posticè truncatum; angulis productis, elongatis, dilatatis s. filiformibus. Solea pedis in alam ovato-rotundam expansa, quæ anticè utrinque in lobulum carnosum minutum producta est.

Testa nulla.

Head ovately oblong, anteriorly retuse. Body oblong, posteriorly truncated, the angles produced, elongated, dilated, or filiform. Sides of the foot expanded into an ovately rounded wing, which is produced anteriorly and on both sides into a minute fleshy lobe.

Shell none.

Sp. 1. D. MECKELII, *Delle Chiave*, Mem. I. pp. 118, 133, t. x. f. 1, 2. *Acera Meckelii*, *Philippi*. Doridium membranaceum, *Meckel*.

D. dorso alisque tuberculis lacteis ornatis.



Back and sides of the foot ornamented with milk-white tubercles  
Catania ; Panormi.

Sp. 2. *D. aphysiæforme*, *Delle Chiaje*, Mem. I. p. 190, t. xiii.  
Coriaceum, *Meck.* *Eidothea marmorata*, *Risso.* *Acera carnosa*,  
*Cuvier.*

D. corpore suprâ pallidè fusco, nigro-reticulato ; subtùs atro-violaceo ; lateribus azureo s. viridi marmoratis.

Body above pale fuscous, reticulated with black ; beneath blackish violet ; the sides marbled with azure or green.

Naples.

Genus 20. GASTROPTERON, *Meckel.* (Animal, pl. cxix. f. 15.)

Corpus ovatum, infernè alam, anticè velum gerit. Velum capitis è membranâ triangulari parti anticæ pedis superpositâ formatur. Pes expansionem transversè ovatam, anticè et posticè retusam, vix emarginatam anticè, verò in parte medianâ productam, format. Anus pone brachiam, porus genitalis ante brachiam jacet.

Body ovate, with a veil anteriorly, and a wing-like foot below. Veil of the head formed by a triangular membrane placed above the fore part of the foot. Foot forming a transversely ovate expansion, retuse anteriorly and posteriorly, slightly emarginate in front and produced in the middle. Anus behind, and genital pore before, the gills.

Sp. G. MECKELII, *Kosse*, Dissert. de Pteropod. ord. Bl. Malac. pl. xlv. f. 5. *Clio amati*, *Delle Chiaje.*

Genus 21. ATLAS, *Lesueur.* (Animal, pl. cxxix. f. 17.)

Caput lobis parvis duobus tentacularibus. Corpus in partibus duabus divisum. Pes dilatatus, circularis, margine ciliato.

Testa nulla.

Head with two small tentacular lobes. Body divided into two parts by a narrow peduncle. Foot dilated circularly and ciliated at the margin.

Shell none.

*Atlas Peronii*, *Blainv.*











## SPECIES OF THE GENUS BULLA.

## SUB-GENUS BULLINA.

1. BULLA SCABRA (pl. cxx. f. 1), *Chemnitz*, t. 146, f. 1352, 1353, p. 118.

B. testâ ovatâ, in dorso subcarinatâ, decussatim striatâ, scabrâ, albâ, lineis roseis longitudinalibus insignitâ; spirâ parùm elevatâ, obtusâ; columellâ sinuosâ, reflexâ.

Ovate, decussately striated, rough, white, marked with longitudinal rose-red lines; spire obtuse, a little elevated; columella sinuous, reflected.

Japan. *Mus. Cuming.*

2. BULLA LINEATA (pl. cxx. f. 2). *Bulla lineata*, *Wood*, Ind. Test. Supp., pl. 3. *B. undata*, *Brug.*

B. testâ ovali, ventricosâ, perforatâ, luteo-albâ, lineis roseis longitudinalibus et transversis insignitâ, transversè costatâ; costis lævibus, planiusculis; interstitiis punctatis, punctis minoribus, transversis; spirâ elevatâ; apice acuto; anfractibus quatuor, rotundatis; aperturâ ovali; labio posticè uniplicato, tortuoso, anticè subtruncato.

Shell oval, ventricose, umbilicated, yellowish-white, ornamented with undulated longitudinal and transverse red lines, transversely grooved, ribs smooth and flat, interstices punctured, punctures small, transverse; spire elevated; apex acute; whorls four, rounded; aperture oval, inner lip posteriorly with a single fold, tortuous, anteriorly subtruncate.

Australia.

3. BULLA BRUGUIERI (pl. cxx. f. 3), *Adams*.

B. testâ ovali, ventricosâ, perforatâ, carmineâ, fasciis duabus flavescenti-albis, lineis longitudinalibus, carmineis, undulatis, decussatis, transversè costatâ; costis planiusculis, scabris; interstitiis lineis elevatis, longitudinalibus; spirâ prominulâ; apice obtuso; anfractibus tribus, rotundatis; aperturâ angustè ovatâ, anticè productâ; labro acuto, intùs sulcato; labio posticè tenui, reflexo, anticè tortuoso.

Shell oval, ventricose, perforated, pink, with two yellowish-white bands, crossed by longitudinal pink undulating lines, transversely ribbed; ribs flat, rough; interstices with elevated longi-



tudinal lines; spire prominent; apex obtuse; whorls three, rounded; aperture narrowly ovate, anteriorly produced, outer lip acute, grooved internally, inner lip posteriorly thin, reflected, adnate, anteriorly twisted.

Ceylon. *Dr. Sibbald. Mus. Cuming.*

#### SUB-GENUS APLUSTRUM.

4. *BULLA THALASSIARCHI* (pl. cxx. f. 4, 5, 6), *Martini*, Chemn. x. t. 146, f. 1350, 1351. *Aplustrum fasciatum*, *Schum.* *Bulla amplustre*, *Linn.* *Aplustra pulchella*, *Swains.* *Bulla amplustre*, *Lamarck*, vol. vi. p. 35.

B. testâ ovatâ, subcylindricâ, pellucidâ, nitidâ, fasciis albis et rubicundis seu incarnatis ac lineis nigricantibus adnatis cinetâ; columellæ labio reflexo; spirâ obtusâ.

Shell ovate, subcylindrical, pellucid, shining, encircled with white and reddish or flesh-coloured bands, and adnate blackish lines; columellar lip reflexed; spire obtuse.

Mauritius; in mud at the mouths of rivers. *Mus. Cuming.*

5. *BULLA GOULDII* (pl. cxx. f. 7), *Couthoy*, Bost. Journ. Nat. Hist. ii. p. 182, pl. 4. f. 6.

B. testâ parvâ, ovatâ, convolutâ, fragili, albâ, nitidâ, subopacâ, epidermide membranaceâ olivaceâ tectâ, transversim tenuè striatâ; spirâ depressâ, discoideâ, imperforatâ, interdum prominulâ, anfractibus quatuor, supernè rotundatis, suturis impressis; aperturâ suprâ angustâ, versus basin dilatâ; columellâ arcuatâ, albâ, nitidâ, imperforatâ.

Shell small, ovate, convoluted, fragile, white, shining, subopaque, covered with an olive membranous epidermis, transversely finely striated; spire depressed, discoid, imperforate, sometimes rather prominent, whorls four, rounded above, sutures impressed; aperture narrow above, dilated towards the base; columella arched, white, shining, imperforate.

Massachusetts Bay, U. S.

6. *BULLA DEBILIS* (pl. cxx. f. 8), *Gould*, Silliman's Journ. xxxviii. 196.

B. testâ obliquè ovatâ, parvâ, pellucidâ, corneâ, inflatâ, lævi, subumbilicatâ; spirâ distinctâ, planâ, anfractibus quatuor; columellâ subrectâ, anticè abruptè truncatâ; aperturâ amplâ, anticè dilatâ.



Shell obliquely ovate, small, pellucid, horny, inflated, smooth, subumbilicated; spire distinct, flattened, whorls four; columella rather straight, anteriorly abruptly truncated; aperture white, dilated anteriorly.

North America. *Mus. Cuming.*

#### SUB-GENUS HYDATINA.

7. *BULLA PHYSIS* (pl. cxx. f. 9-11), *Linn.*, *Martin*, t. 21. f. 196, 197. *Hydatina filosa*, *Schum.*

*B. animale* fusco-rubro, margine pedis et appendicibus smaragdino-cyaneis.

*B. testâ* rotundato-ovatâ, perforatâ, tenui, subpellucidâ, lævi, albidâ, lineolis fuscis transversis undulatis pictâ; spirâ retusâ.

Animal of a clear red-brown, edge of foot and appendages of an emerald blue.

Shell rotundately oval, umbilicated, thin, semipellucid, smooth, whitish, painted with transverse waved fuscous lines; spire retuse; length 15 lines, breadth 11 lines.

Mauritius; on clear sand. *Mus. Cuming.*

8. *BULLA VEXILLUM* (pl. cxx. f. 12, 13, 14), *Chemn.*, *Conch.* x. t. 146. f. 1348, 1349. *B. fasciata*, *Brug.* *B. velum*, *Gm.* *B. amplustre*, *Born.*

*B. testâ* subglobosâ, tenui, subpellucidâ, albido-cinerascente, fasciis fuscis transversim pictâ, striis longitudinalibus tenuissimis.

Shell subglobose, thin, semipellucid, ashy white, painted with transverse fuscous bands, with very fine longitudinal striæ.

Ceylon. *Dr. Sibbald.* *Mus. Cuming.*

9. *BULLA NITIDULA* (pl. cxx. f. 15, 16), *Lister*, *Hist. Conch.* t. 715. f. 74. *Ferussacii*, *Quoy*, *Voy. de l'Uranie*, *Zool.* pl. 66. f. 10-12.

*B. testâ* ovali, imperforatâ, albâ, nitidâ, lineis tribus, transversis, rufo-fuscis, lineisque longitudinalibus, rufo-fuscis, undulatis pictâ, transversè striatâ, striis subdistantibus, punctatis; spirâ prominulâ; apice obtuso; aperturâ amplâ, posticè angustatâ, anticè valde dilatâ; labio arcuato, anticè rotundato.

Shell ovate, imperforate, white, shining, with three transverse reddish-brown lines, and numerous undulating red-brown longitudinal lines; transversely striated, striæ rather wide apart, punctated; spire rather prominent; apex obtuse; aperture wide,



posteriorly narrowed, anteriorly greatly dilated, inner lip arched, rounded anteriorly.

St. Vincent's, West Indies, Guild. *Mus. Cuming.*

Animal covered with a network of red-brown lines.

10. *BULLA ALBO-CINCTA* (pl. cxx. f. 17, 18), *Hoeben*, Leyden Journ. Nat. Hist. d. 6. st. 4. p. 10.

B. testâ subglobosâ, tenui, subpellucidâ, fusco-cinerascente, fasciis tribus, latis, albis, transversim pictâ, striis fuscis, longitudinalibus, obliquis.

Shell subglobose, thin, semipellucid, ashy, fuscous, with three broad, white, transverse bands, and numerous oblique brown striæ.

China. *Mus. Cuming.*

#### SUB-GENUS TORNATINA.

11. *BULLA VOLUTA* (pl. cxxi. f. 24), *Quoy*, Voy. de l'Astrolabe, pl. 26. f. 33-35.

B. testâ elongatâ, minimâ, lævi, cylindricâ, albâ; spirâ prominente; apice acuto; suturis latis, profundis.

Shell elongated, small, smooth, cylindrical, white; spire prominent; apex acute; suture of the whorls wide and deep.

Island of Guam. *Mus. Cuming.*

12. *BULLA CANALICULATA* (pl. cxxi. f. 25). *Bullina canaliculata*, *Say*, Amer. Conch. pl. 39. *Volvaria canaliculata*, *Say*.

B. testâ cylindricâ, albâ, nitidâ, lineis incrementi evanidis; spirâ elevatiusculâ; apice prominente; anfractibus quinque, sulco rotundato præditis; labro anticè arcuato; columellâ plicâ unâ obliquâ ad basin.

Shell cylindrical, white, shining, with evanescent lines of growth; spire rather elevated; apex prominent; whorls five, furnished with a rounded groove; outer lip anteriorly arcuated; columella with a single oblique fold at the base.

Carolina, U. S. *Mus. Metcalfe.*

13. *BULLA MAMMILLATA* (pl. cxxi. f. 26), *Philippi*, Enum. Moll. Sicil. vol. i. t. vii. f. 20.

B. testâ minutâ, cylindricâ, longitudinaliter substriatâ; vertice truncato; medio papillato; spirâ conspicuâ, truncatâ, anfractibus tribus, quorum primus papillam elevatam sistit; aperturâ supernè



angustâ, lineari, infernè valdè dilatâtâ ; plicâ ad basin columellæ vix distinctâ.

Shell minute, cylindrical, longitudinally substriated ; apex truncated, papillary in the middle ; spire conspicuous, truncated, whorls three, the first of which consists of an elevated papilla ; aperture narrow and linear above, dilated below ; columella with an indistinct plait at the base.

Sicily. Exmouth, England. *Mus. Cuming.*

14. BULLA TRUNCATA (pl. cxxi. f. 27), *Adams*, Linn. Trans. v. i. *Montag.* t. vii. f. 5. B. semisulcata, *Philippi*.

B. testâ minutâ, cylindricâ, basi vix dilatâtâ, supernè longitudinaliter sulcatâ, sulcis infernè evanidis ; vertice truncato, concavo ; spirâ manifestâ, anfractibus 3-4 ; aperturâ angustè lineari, infernè dilatâtâ ; plicâ ad basin columellæ parùm manifestâ.

Shell minute, cylindrical, a little dilated at the base, above longitudinally grooved, grooves obsolete below ; apex truncated, concave ; spire visible, whorls 3-4 ; aperture narrowly linear, dilated inferiorly ; a faint indication of a plait at the base of the columella.

Frequent in Sicily. British Islands. *Mus. Cuming.*

15. BULLA TURRITA (pl. cxxi. f. 28), *Möll.*, Ind. Moll. Greenland., p. 79.

B. testâ minutâ, cylindricâ, albâ ; spirâ productâ ; apice acuto ; rimâ umbilicali angustâ ; anfractibus  $3\frac{1}{2}$ , long. 1·5.

Shell minute, cylindrical, white ; spire produced ; apex acute ; umbilical fissure narrow ; whorls  $3\frac{1}{2}$ , length 1·5.

Greenland. *Mus. Brit.*

16. BULLA OBSTRICTA (pl. cxxi. f. 29), *Gould*, Silliman's Journ. xxxviii. 196.

B. testâ ovato-cylindricâ, albâ, sublævi, longitudinaliter sulcatâ ; spirâ subelevatâ, anfractibus quatuor, anfractu ultimo in medio obstricto ; columellâ uniplicatâ ; aperturâ angustâ, lineari, in medio coarctatâ, infernè dilatâtâ.

Shell ovately cylindrical, white, rather smooth, longitudinally grooved ; spire somewhat elevated, whorls four, the last whorl contracted in the middle ; columella with a single plait ; aperture narrow, linear, contracted in the middle, dilated inferiorly.

United States : Massachusetts.



. 17. *BULLA PUSILLA* (pl. cxxi. f. 30), *Pfeiffer*.

B. testâ parvâ, albâ, brevi, subfusiformi; spirâ subacuminatâ, anfractibus tribus, ultimo magno, papilloso; aperturâ angustâ, labio anticè valdè plicato, labio subrecto; rimâ umbilicari subapertâ.

Shell small, white, short, subfusiform; spire subacuminated, whorls three, the last large and papillary; aperture narrow; columella with a very strong anterior fold; outer lip rather straight; umbilical fissure rather wide. *Mus. Hanley*.

18. *BULLA COARCTATA* (pl. cxxi. f. 31), *Adams*.

B. testâ ovato-cylindricâ, in medio subangustatâ, albâ, nitidâ, striis spiralibus, confertis, tenuissimis, undulosis sculptâ; spirâ subdepressâ, anfractibus quatuor, suturâ profundè canaliculatâ, laminâ spirali è callo columellari cinctâ; aperturâ angustâ, in medio coarctatâ, infrâ dilatâ; columellâ callosâ, plicâ evanidâ; labio externo, suprâ rotundato, in medio subinflexo.

Shell ovately cylindrical, somewhat narrowed in the middle, white, shining, engraved with very fine close spiral lines; spire somewhat depressed, whorls four, suture deeply channelled, encircled with a spiral lamina from the columellar callus; aperture narrow, contracted in the middle, inferiorly dilated; columella callous, with an obsolete fold; outer lip rounded above, subinflexed in the middle.

Island of Fieco; coral sands, 6 fathoms, *H. C. Mus. Cuming*.

19. *BULLA PLANOSPIRA* (pl. cxxi. f. 32), *Adams*.

B. testâ cylindricâ, apice truncatâ, albâ, lævi, subpellucidâ, longitudinaliter sulcatâ; spirâ depressâ, planâ, anfractibus quatuor, sulcatis, radiatim striatis; aperturâ angustâ, anticè dilatâ; columellâ callosâ, uniplicatâ.

Shell cylindrical, apex truncated, white, smooth, subpellucid, longitudinally grooved; spire depressed, level-topped, whorls four, grooved, radiately striated; aperture narrow, anteriorly dilated; columella callous, with a single plait.

Sorsagon, Island of Luzon, 4 fathoms, coarse sand. *Cuming*.

20. *BULLA BIPLEX* (pl. cxxi. f. 33), *Adams*.

B. testâ cylindricâ, apice subtruncatâ, albâ, solidâ, nitidâ, trans-



versim striatâ; spirâ depressâ, anfractibus quatuor; aperturâ lineari, in medio coarctatâ, anticè dilatâ; labro posticè producto, parùm recedente, in medio inflexo, anticè tuberculo unico; columellâ uniplicatâ.

Shell cylindrical, apex subtruncated, white, solid, shining, transversely striated; spire depressed, whorls four; aperture linear, contracted in the middle, anteriorly dilated; outer lip posteriorly produced, a little receding, reflexed in the middle, anteriorly with a single strong tubercle; columella with a single plait.

China Sea. *Mus. Cuming.*

21. *BULLA OLIVULA* (pl. cxxi. f. 34), *Adams.*

B. testâ cylindrico-fusiformi, solidâ, albâ, nitidâ, striis punctato-undulatis, spiralibus, transversim sculptâ; spirâ elevato-acuminatâ, anfractibus quinque, suturâ angustâ, laminâ spirali vix manifestâ; aperturâ lineari, anticè dilatâ, labro in medio subinflexo; columellâ arcuatâ, ad basin valdè uniplicatâ.

Shell cylindrical, fusiform, solid, white, shining, transversely engraved with punctated undulating spiral striæ; whorls five, suture narrow, spiral lamina hardly visible; aperture linear, dilated anteriorly, outer lip somewhat inflexed in the middle; columella arched, with a single strong plait at the base.

West Indies. *Mus. Cuming.*

22. *BULLA CINCTELLA* (pl. cxxi. f. 35), *Adams.*

B. testâ cylindrico-fusiformi, apice acuminatâ, sublævi, semipellucidâ, longitudinaliter sulcatâ, fasciis duabus, albis, spiralibus cinctâ; spirâ acuminatâ, anfractibus quatuor, primo prominente; aperturâ angustâ, anticè dilatâ; columellâ plicâ valdè distinctâ; rimâ umbilicali profundâ.

Shell cylindrically fusiform, apex acuminate, rather smooth, semipellucid, longitudinally sulcated, encircled with two white spiral bands; spire acuminate, whorls four, the first prominent; aperture narrow, anteriorly dilated; columella with a very distinct plait; umbilical fissure deep.

China Sea. *Mus. Cuming.*

23. *BULLA GRACILIS* (pl. cxxi. f. 36), *Adams.*

B. testâ cylindrico-fusiformi, gracili, semipellucidâ, corneâ, vertice acuminatâ, transversim striis minutissimis spiralibus sculptâ; spirâ productâ, acuminatâ, anfractibus quatuor, primo



prominente; apertură angustă, anticè dilatată; columellă uniplicată.

Shell cylindrically fusiform, slender, semipellucid, horn-coloured, apex acuminate, transversely engraved with very fine spiral striæ; spire produced, pointed, whorls four, the first prominent; aperture narrow, dilated anteriorly; columella with a single plait.

China Sea. *Mus. Cuming.*

24. BULLA FUSIFORMIS (pl. cxxi. f. 37), *Adams. Tornatella bullata*, Kiener, Monograph.

B. testă cylindrico-fusiformi, albă, lævi, subpellucidă, longitudinaliter subsulcată; spiră elevată, acuminată, anfractibus quinque, suprâ subcanaliculatis; apertură lineară, in medio coarctată, anticè dilatată; columellă semiplicată, plică callosă; labro in medio inflexo.

Shell cylindrically fusiform, white, smooth, semipellucid, longitudinally somewhat sulcated; spire elevated, acuminate, whorls five, somewhat channelled above; aperture linear, contracted in the middle, dilated anteriorly; columella slightly plicated, plait callous, outer lip reflexed in the middle.

China Sea. *Mus. Cuming.*

25. BULLA SIMPLEX (pl. cxxi. f. 38), *Adams.*

B. testă ovato-cylindrică, albă, nitidă, solidă, lævissimă, epidermide fuscă tectă; spiră elevată, anfractibus quinque, ultimo mammillato; lamină spirali conspicuă; apertură angustă, anticè dilatată; columellă vix callosă, plică evanidă.

Shell ovately cylindrical, white, shining, polished, smooth, covered with a fuscous epidermis; spire elevated, whorls five, the first one mammillated; spiral lamina conspicuous; aperture narrow, dilated anteriorly; columella slightly callous, plait obsolete.

Cagayan, Island of Mindanao, 35 fathoms; sandy mud. *Cuming.*

26. BULLA POLITA (pl. cxxi. f. 39), *Adams.*

B. testă ovato-cylindrică, supernè rotundată, apice truncată, albă, solidă, nitidă, infernè transversim striată; spiră depressă, anfractibus tribus, rotundatis, lævibus; apertură angustă, posticè productă, in medio subcoarctată, anticè dilatată, labro in medio subinflexo, incrassato; columellă plică valdè distinctă.



Shell ovately cylindrical, rounded above; apex truncated, white, solid, shining, inferiorly transversely striated; spire depressed, whorls three, rounded, smooth; aperture narrow, posteriorly produced, rather contracted in the middle, dilated anteriorly, outer lip rather bent in and thickened in the middle; columella with the fold very distinct.

Bay of Manilla; clayey mud, three fathoms. *Cuming.*

#### SUB-GENUS UTRICULUS.

27. *BULLA PERTENUIS* (pl. cxx. f. 19), *Mighels*, Bost. Journ. Nat. Hist. vol. ii. p. 346. pl. xvi. f. 3.

B. testâ minutâ, cylindraceâ, albidâ, fragili, hyalinâ; spirâ elevatâ, discoideâ, anfractibus quatuor, rotundatis, suturâ distinctâ; labro supernè recto, infrâ rotundato; aperturâ supernè angustatâ, infrâ latâ.

Shell small, cylindrical, whitish, fragile, hyaline; spire elevated, discoidal, whorls four, rounded, suture distinct; outer lip straight superiorly, rounded inferiorly; aperture narrow above, wide below.

Casco Bay, U. S. *Mus. Cuming.*

28. *BULLA OBTUSA* (pl. cxx. f. 20), *Turt.*, Walk. Test. min. f. 61.

B. testâ subcylindricâ, opacâ, albâ, longitudinaliter rugoso-striatâ; spirâ distinctâ, elevatiusculâ, anfractibus quatuor vel quinque; aperturâ angustâ, in medio coarctatâ, anticè dilatatâ; columellâ simplici, subincrassatâ.

Shell subcylindrical, opaque, white, longitudinally roughly striated; spire distinct, rather elevated, whorls four or five; aperture narrow, contracted in the middle, anteriorly dilated; columella simple, rather thickened.

British Islands. *Mus. Cuming.*

29. *BULLA PELLUCIDA* (pl. cxx. f. 21), *Brown.* B. candida, *Macgill.*

B. testâ obliquè ovatâ, parvâ, pellucidâ, inflatâ, lævi, subumbilicatâ; spirâ distinctâ, planâ, anfractibus tribus, primo mammilatâ; aperturâ amplâ, posticè coarctatâ, anticè dilatatâ.

Shell obliquely ovate, small, pellucid, inflated, smooth, subumbilicated; spire distinct, flat, whorls three, the first mammillated; aperture wide, posteriorly contracted, anteriorly dilated.

British Islands. *Mus. Cuming.*



30. *BULLA CECILLII* (pl. cxx. f. 22), *Philippi*.

B. testâ ovato-cylindricâ, lævi, tenui, epidermide olivaceâ tectâ, longitudinaliter substriatâ; spirâ distinctâ, elevatiuseulâ, anfractibus quinque, suturâ corrugatâ; aperturâ angustâ, anticè valdè dilatâtâ; columellâ arcuatâ, simplici.

Shell ovately cylindrical, thin, smooth, covered with an olivaceous epidermis, longitudinally substriated; spire distinct, rather elevated, whorls five, suture corrugated; aperture narrow, anteriorly widely dilated; columella arched, simple.

Mexico. *Mus. Hanley*.

31. *BULLA BORNEENSIS* (pl. cxx. f. 23), *Adams*.

B. testâ ovato-cylindricâ, lævi, subpellucidâ, albâ, epidermide ferrugineâ tectâ, longitudinaliter striatâ; spirâ distinctâ, planâ, anfractibus quatuor, rotundatis, primo mammillato; aperturâ angustâ, anticè dilatâtâ; columellâ longâ, semitortuosâ; umbilico nullo.

A much smaller shell than *B. Cecillii*. It is narrower, more cylindrical; the aperture is more produced anteriorly; the columella is longer and straighter, and the spire is more depressed. The mud flats at the mouths of many of the rivers of Borneo are partially covered at low water with this animal; the shell is always covered, when the animal is alive, with a rust-coloured epidermis.

Borneo. *Adams*.

SUB-GENUS *AKERA*.

32. *BULLA SOLUTA* (pl. cxxi. f. 40), *Chemnitz*, Mart. Hist. Conch. x. t. 46. f. 1359-61. *Ceylanica*, *Brug.* Enc. Méth. vol. i. p. 376. *B. resiliens*, *Don*. *B. flexilis*, *Brown*.

B. testâ subcylindricâ, longitudinaliter striatâ, corneâ, diaphanâ; suturis canaliculatis; labro anticè fisso.

Shell subcylindrical, longitudinally striated, horny, diaphanous; sutures channelled, outer lip anteriorly sinuated as if cut off.

Zanzibar. *T. Thorne, Esq.* Sandy mud; Philippines. *Cuming*.

33. *BULLA BULLATA* (pl. cxxi. f. 41), *Akera bullata*, *Müller*, Zool. Dan. p. 242. Icon. tom. ii. t. 71. f. 1-5. *B. fragilis*, *Lamarck*. *A. Akera*, *Gm.* *B. norvegica*, *Brug.* *B. soluta parva*, *Ch.*

B. testâ subovatâ, pellucidâ, lævi, corneâ; labro supernè soluto; spirâ truncatâ.



Shell subovate, pellucid, smooth, horny; outer lip superiorly separated from the last whorl; spire truncate.

West of Ireland. *Mus. Cuming.*

34. *BULLA SUBANGULATA* (pl. cxxi. f. 43), *Möller*, Ind. Moll. Grœnl. p. 79.

B. testâ ovatâ, ventricosâ, subumbilicatâ, fragilissimâ, luteâ, in medio anfractu subangulatâ; spirâ depressâ, planiusculâ, suturâ profundâ, anfractibus  $3\frac{1}{2}$ , long. 2·3.

Shell ovate, ventricose, subumbilicated, very fragile, yellow, subangulated in the middle; spire depressed, rather flat, suture deep.

Greenland. *Mus. Cuming.*

35. *BULLA BICINCTA* (pl. cxxi. f. 44), *Quoy et Gaimard*, Voy. de l'Astr. pl. 26. f. 31, 32.

B. testâ ovato-oblongâ, tenuissimâ, fragili, albâ, duabus vittis rufulis cinctâ, striis longitudinalibus et transversis; suturâ fissâ; long. 1 poll., lat. 8 lin.

Shell ovately oblong, very thin, fragile, white, encircled by two reddish bands, longitudinally and transversely striated; suture fissured; length 1 in., width 8 lin.

New Holland; Princess Royal Harbour, Port Saint George.

• 36. *BULLA TENUIS* (pl. cxxi. f. 45), *Adams*.

B. testâ subcylindricâ, gracili, anticè productâ, corneâ, diaphanâ, longitudinaliter striatâ; spirâ elevatiusculâ.

Shell subcylindrical, slender, anteriorly produced, horny, diaphanous, longitudinally striated; spire rather elevated.

Rain's Island, Torres Straits. *Capt. Ince, R. N. Mus. Cuming.*

37. *BULLA HANLEYI* (pl. cxxi. f. 46), *Adams*.

B. testâ minutâ, ovali, hyalinâ, corneâ, lævi, longitudinaliter tenuissimè substriatâ; spirâ depressâ, planâ.

Shell minute, oval, hyaline, horny, smooth, longitudinally very finely substriated; spire depressed, flattened.

Zetland; dredged by *Mr. Mc Andrew. Mus. Cuming.*

37 a. *BULLA TUMIDA* (pl. cxxv. f. 169), *Adams*.

B. testâ corneâ, fragili, ovato-cylindraceâ, spirâ subplanatâ,



semipellucidâ, in medio tumidâ, et prope labium gibbosulâ, fasciâ pallidâ fuscâ vix conspicuâ ornatâ, transversim crebriter striatâ, longitudinaliter subplicatâ; aperturâ anticè valdè dilatâtâ.

Shell horny, fragile, ovately cylindrical, spire rather flattened, semipellucid, tumid in the middle, and rather gibbous near the inner lip, encircled with a faint scarcely conspicuous fuscous band, transversely very finely striated, longitudinally somewhat plicated; aperture anteriorly very much dilated.

Shores of New Zealand; mud.

#### SUB-GENUS SCAPHANDER.

38. *BULLA LIGNARIA* (pl. cxxi. f. 47), *Linn.*, Gm. p. 3425.

B. testâ oblongâ, laxè convolutâ, versus spiram attenuatâ, transversim striatâ, pallidè fulvâ; spirâ truncatâ, umbilicatâ.

Shell oblong, loosely convolute, attenuated towards the spire, transversely striated, pale fulvous; spire truncated, umbilicated.

Sicily; Salcomb river, England. *Mus. Cuming.*

39. *BULLA VESTITA* (pl. cxxi. f. 48), *Philippi*, En. Moll. Sicil., vol. ii. p. 95. t. 20. f. 4.

B. testâ oblongâ, laxè convolutâ, versus spiram attenuatâ, striis transversis destitutâ, fuscâ, reticulo albo obtectâ; spirâ truncatâ, umbilicatâ.

Shell oblong, loosely convolute, attenuated towards the spire, destitute of transverse striæ, fuscous, covered with a white network; spire truncated, umbilicated.

Sicily.

40. *BULLA LINEOLATA* (pl. cxxi. f. 49), *Couthouy*, Bost. Journ. Nat. Hist., vol. ii. p. 179, pl. 3. f. 15.

B. testâ parvulâ, oblongo-ovatâ, epidermide ferrugineâ tectâ, transversim obliquè frequenterque striatâ; spirâ prominulâ; aperturâ magnâ, ad basin valdè dilatâtâ et subeffusâ; columellâ obliquè subplicatâ.

Shell small, oblong-ovate, covered with a ferruginous epidermis, transversely, obliquely, and closely striated; spire rather prominent; aperture wide, greatly dilated at the base; columella obliquely subplicated.

Massachusetts Bay. *Mus. Cuming.*



41. *BULLA PUNCTO-STRIATA* (pl. cxxi. f. 50), *Mighels*, Bost. Journ. Nat. Hist. vol. v. p. 43. pl. 4. f. 10.

*B.* testâ albâ, solidâ, ovatâ, eleganter striatâ; striis crebris inæquidistantibus punctatis; spirâ occultâ; aperturâ magnâ, supernè angustâ; labro acuto, arcuato; long.  $\frac{1}{38}$  poll., lat.  $\frac{1}{24}$  poll.

Shell white, solid, ovate, elegantly striated; striæ waved, punctated, at unequal distances; spire concealed; aperture wide, narrowed above; outer lip acute, arcuated. Differs from *B. lineolata*, Couth., in its larger size, outer lip being elevated above the apex and by the punctate striæ.

Casco Bay, Massachusetts. *Mus. Cuming.*

42. *BULLA PECTINATA* (pl. cxxi. f. 51), *Müll.*, Zool. Dan. vol. ii. p. 41. t. 71. f. 10. *Scaphander catenatus*, *Leach.* *B. denticulata*, *Ad.* *B. angustata*, *Bivon. Phil.*

*B.* testâ parvâ, elongato-ovali, posticè angustatâ, albâ, lineis transversis distinctis punctatis; aperturâ posticè coarctatâ, anticè dilatâ; labro anticè valdè pectinatâ.

Shell small, elongately oval, posteriorly narrowed, white, with distinct transverse punctate lines; aperture posteriorly contracted, anteriorly dilated; outer lip anteriorly strongly pectinated.

Britain; Denmark. *Mus. Cuming.*

#### SUB-GENUS BULLA.

43. *B. AMPULLA* (pl. cxxii. f. 59-62), *Linn.*, Gm. p. 3424, no. 10.

*B. animale* bipollicari, flavo-fusco, rufo-fusco marmorato; oculis nigris, annulo tenui albido cinctis.

*B.* testâ ovato-subglobosâ, inflatâ, solidâ, fusco et rufo-fusco variè pictâ (interdum obsoletè 4-fasciatâ); labro non inflexo.

Animal two inches in length, yellowish fuscous, marbled with red-brown; eyes black, surrounded with a whitish ring.

Shell ovately somewhat globose, inflated, variously painted, sometimes obsoletely four-banded; outer lip not inflected; apex umbilicated.

Philippines, Island of Zebu; sandy mud at mouths of rivers. *Cuming.* *Mus. Cuming.*

44. *BULLA AMYGDALUS* (pl. cxxii. f. 63), *Lister*, Hist. Conch. t. 714. f. 72. *B. striata*, *Brug.*, Enc. Méth. vol. i. p. 372.

*B.* testâ oblongâ, opacâ, infernè et supernè transversim striatâ,



versus spiram angustatâ, vertice profundè umbilicatâ, pallidè rufâ, fusco alboque variegatâ, aut virescente-olivaceâ.

Shell ovately oblong, opaque, inferiorly and superiorly transversely striated, narrowed towards the spire, apex deeply umbilicated, variegated with white and fuscous or greenish olive.

Gulf of Mexico; West Indies. *Mus. Cuming.*

45. *BULLA AUSTRALIS* (pl. cxxii. f. 64-66), *Quoy et Gaim.*, Voy. de l'Astr. pl. 26. f. 38, 39.

B. testâ elongato-cylindraceâ, variè pictâ; apice tenuissimè perforato; labro recto.

Shell elongately cylindrical, variously painted; apex very finely perforated; outer lip straight.

Tahiti; on the reefs. *Cuming.*

46. *BULLA ADANSONII* (pl. cxxiii. f. 69), *Philippi*, Zeitschr. für Malak. 1847. p. 121. "Gosson," Adanson. *Bulla striata*, *Auct. ex parte.*

B. testâ ovato-oblongâ, solidâ, albidâ, griseo et nigro variâ, inferiùs striatâ; vertice perforato; aperturâ inferiùs dilatâtâ, superiùs angustatâ; labro medio depresso, rectilineo, alt. 11, tab. 6 $\frac{1}{3}$ .

Shell ovately oblong, solid, whitish varied with grey and black, inferiorly striated; apex perforated; aperture inferiorly dilated, superiorly narrowed; outer lip depressed and rectilinear in the middle.

Senegambia.

47. *BULLA MEDIA* (pl. cxxiii. f. 70), *Philippi*, Zeitschr. für Malak. 1847. p. 121. B. striata, *Auct. ex parte.*

B. testâ ovatâ, solidâ, albidâ, rufo et fusco variâ, modò inferiùs transversim striatâ; vertice umbilicato; aperturâ inferiùs dilatâtâ, superiùs subangustatâ; labro medio depresso, rectilineo.

Shell ovate, solid, whitish varied with red-brown and red, only transversely striated inferiorly; apex umbilicated; aperture inferiorly dilated, superiorly somewhat narrowed; outer lip depressed and rectilinear in the middle.

West Indies.

48. *BULLA QUOYII* (pl. cxxiii. f. 71), *Gray*, MS. Brit. Mus.

B. testâ ovatâ, ventricosâ, sublævigatâ, vertice profundè umbilicatâ, fusco alboque variegatâ; labro acuto, arcuato.



Shell ovate, ventricose, rather light and thin ; apex umbilicated, variegated with white and fuscous ; outer lip acute, arcuated.

Gallipagos Islands ; coral sand, 6-8 fathoms. *Cuming. Mus. Cuming.*

49. *BULLA OCCIDENTALIS* (pl. cxxiii. f. 72, 73), *Adams.*

B. testâ ovato-oblongâ, opacâ, solidâ, pallidè rufescente, maculis lineisque undulatis rufis variegatâ, anticè transversim striatâ.

Shell ovately oblong, opaque, solid, pale reddish, variegated with red-brown spots and waved lines, anteriorly transversely striated.

West Indies, St. Vincent's ; Guilding. *Mus. Cuming.*

50. *BULLA OBLONGA* (pl. cxxiii. f. 74), *Adams.*

B. testâ ovato-oblongâ, utrinque attenuatâ, longitudinaliter substriatâ, striis minutissimis transversis, fusco et rufo-fusco variè pictâ ; labro arcuato.

Shell ovately oblong, narrowed at both ends, longitudinally substriated, with very fine transverse striae, variously painted with brown and red-brown ; outer lip regularly arcuated.

Philippines, and Island of Annaa ; on the reefs. *Cuming.*

51. *BULLA CRUENTATA* (pl. cxxvi. f. 75), *Adams.*

B. ovato-globosâ, inflatâ, solidâ, opacâ, maculis sanguineis albo-punctatis variegatâ, intùs albidâ.

Shell ovately globose, inflated, solid, opaque, variegated with blood-red spots punctated with white, white internally.

Moluccas. *Cuming.*

52. *BULLA RUFOLABRIS* (pl. cxxiii. f. 76), *Adams.*

B. testâ elongato-cylindraceâ, solidâ, opacâ, longitudinaliter sulcosâ, rufescente, maculis cinereis albo-punctatis pictâ ; labro subrecto, in medio inflexo, margine rufo.

Shell elongately cylindrical, solid, opaque, longitudinally grooved, reddish, painted with dark ash-coloured spots punctured with white ; outer lip rather straight, reflexed in the middle, margin of a red colour.

Gallipagos Islands ; fine coral sand, 6 fathoms. *Cuming.*

53. *BULLA PUNCTATA* (pl. cxxiii. f. 77), *Adams.*

B. testâ ovato-oblongâ, solidâ, opacâ, nitidâ, pallidè rufescente,



maculis nigris albo-punctatis pictâ, fasciis duabus pallidè brunneis cinctâ; labro subrecto arcuato.

Shell ovately oblong, solid, opaque, shining, pale reddish, painted with black and white punctated spots, encircled with two pale brown bands; outer lip rather straight, arcuated.

Panamà; sandy mud, 10 fathoms. *Cuming*.

54. *BULLA ASPERSA* (pl. cxxiii. f. 78), *Adams*.

B. testâ ovato-oblongâ, anticè angustatâ, solidâ, opacâ, longitudinaliter substriatâ, striis minutissimis undulatis confertis, maculis albo-punctatis pictâ; labro subrecto, angulo ejus supero producto; labio incrassato, intùs albo.

Shell oblong-ovate, narrowed anteriorly, solid, opaque, longitudinally substriated, with numerous very fine striae, painted with white punctured spots; outer lip rather straight, its upper angle produced; inner lip thickened, white internally.

Payta, Peru; fine black sand, 6-8 fathoms. *Cuming*.

55. *BULLA NEBULOSA* (pl. cxxiii. f. 79, 80), *Gould*, Nar. Un. States Surv. Exp.

B. ovato-globosâ, inflatâ, lævigatâ, opacâ, versus spiram subangustatâ, cinerascete, maculis guttatis albo-cinereis pictâ, intùs cinereâ, iridescente.

Shell ovately globose, inflated, light, rather thin, opaque, somewhat narrowed towards the spire, painted with ashy drop-like spots punctated with white, internally ashy and iridescent.

Guaymas, Gulf of California; in sand, 12 inches. *Mus. Cuming*.

SUB-GENUS HAMINEA.

56. *BULLA HYDATIS* (pl. cxxiv. f. 81, 82), *Linn.*, *Gmel.*, p. 3424, no. 9. B. hyalina, *Gmel.* B. navicula, *Da Costa*. B. cornea, *Lamarck*.

B. testâ ovato-rotundatâ, tenui, pellucidâ, longitudinaliter substriatâ, corneo-flavescente; lineolis transversis, exilissimis; vertice umbilicato.

Shell ovately rounded, thin, pellucid, longitudinally somewhat striated, yellowish horn-colour, with very fine transverse wavy lines; apex umbilicated.

Salcomb Bay, Devonshire.



57. *BULLA VIRESCENS* (pl. cxxiv. f. 83), *Sowerby*, *Genera*, no. xxxix. f. 2.

B. testâ subovali, apertâ, virescente, semipellucidâ, versus spiram valdè angustatâ, longitudinaliter substriatâ, lineis transversis minutissimis (oculo nudo inconspicuis); aperturâ amplâ, anticè dilatâtâ, posticè coarctatâ, labro supernè producto, posticè inflexo.

Shell suboval, open, greenish, semipellucid, greatly narrowed towards the spire, longitudinally substriated, with very minute transverse lines (not visible with the naked eye); aperture wide, anteriorly dilated, posteriorly contracted; outer lip produced above, posteriorly inflexed.

Pitcairn's Island; on rocks at low water. *Cuming*.

58. *BULLA INSCULPTA* (pl. cxxiv. f. 84), *Totten*, *Silliman's Journ.* xxviii. 350. fig. 4. B. solitaria, *Say*. B. Reinhardi, *Holb*.

B. testâ albo-cærulescente, fragili; anfractu ultimo amplo, lineis transversis minutis; apice umbilicato.

More oval than *B. hydatis*, and of a peculiar bluish-white colour; the sculpture is the same.

North America. *Mus. Cuming*.

59. *BULLA ORYZA* (pl. cxxiv. f. 85), *Totten*, *Silliman's Journ.* xxviii. 350. f. 5.

B. testâ minutâ, albâ, nitidâ, subovali; anfractu ultimo amplo, striis paucis transversis sculpto; apice depresso, imperforato.

Shell minute, white, shining, suboval; the last whorl large, with a few transverse striæ; apex depressed, imperforate.

Massachusetts.

60. *BULLA NATALENSIS* (pl. cxxiv. f. 86), *Krauss*, *Sudafrik. Moll.* p. 71. Tab. iv. f. 14.

B. testâ ovato-globosâ, subventricosâ, tenuissimâ, pellucidâ, nitidâ, flavo-virescente, longitudinaliter striatâ; vertice subumbilicato; aperturâ amplâ, anticè dilatâtâ; margine externo arcuato, supernè producto, rotundato.

Shell ovately globose, subventricose, very thin, pellucid, shining, yellowish-green, longitudinally striated, apex somewhat umbilicated; aperture wide, anteriorly dilated; outer margin arched, superiorly produced and rounded. Length 4·4, lat. 3·3 lines.

Shores of Natal. *Mus. Cuming*.



61. *BULLA GUILDINGII* (pl. cxxiv. f. 87-89). *Bullæa Guildingii*, *Swains.*, Malac. p. 251. f. 46.

B. testâ ovato-oblongâ, subcylindraceâ, tenui, pellucidâ, corneâ, albo-rufescente, longitudinaliter substriatâ, lineis transversis insculptis subdistantibus.

Shell ovately oblong, subcylindrical, thin, pellucid, horny white or rufescent, longitudinally somewhat striated, with transverse engraved lines rather wide apart.

Jamaica. *Mr. Phil. Gosse. Mus. Cuming.*

62. *BULLA CYMBALUM* (pl. cxxiv. f. 90), *Quoy et Gaim.*, Voy. de l'Ast. pl. 26. f. 26, 27.

B. testâ fragili, pellucidâ, globosâ, lævi, albâ; aperturâ anticè latâ, posticè angustatâ, margine dextro leviter inflecto; apice retuso. Long. 7 lin., lat. 5 lin.

Shell fragile, pellucid, globose, smooth, white; aperture anteriorly wide, posteriorly narrowed, outer margin slightly inflated; apex blunt. Length 7 lines, breadth 5 lines.

Smooth and polished, with faint longitudinal striæ of growth.

Island of Guam. *Mus. Cuming.*

63. *BULLA PEMPHIS* (pl. cxxiv. f. 91), *Philippi*, Zeitschr. für Malak. 1847. p. 122. B. *Zealandiæ*, *Gray*, MS. Mus. Brit.

B. testâ subgloboso-rotundatâ, tenui, pellucidâ, è rufescente albâ, lineolis transversis exilissimis sculptâ; vertice umbilicato; aperturâ basi dilatâ; labio arcuè adnato. Alt. 7, diam.  $5\frac{1}{2}$ .

Shell subglobosely rounded, thin, pellucid, reddish-white, engraved with very fine transverse lines; apex umbilicated; aperture dilated at the base; inner lip narrow, adnate.

Red Sea. *Mus. Cuming.*

64. *BULLA ELEGANS* (pl. cxxiv. f. 92), *Gray*, Wood, Ind. Test. Suppl. pl. 3. f. 2. B. *perforata*, *Philippi*, Zeitschr. für Malak. 1847. p. 122.

B. testâ ovato-rotundatâ, tenui, pellucidâ, albâ, lineolis transversis exilissimis sculptâ; vertice umbilicato; aperturâ basi dilatâ; labio fissuram umbilicalem formante.

Shell ovately rounded, thin, pellucid, white, engraved with very fine transverse lines; apex umbilicated; aperture dilated at the base; inner lip forming an umbilical fissure.

Manila. *Cuming.*



65. *BULLA BREVIS* (pl. cxxiv. f. 93), *Quoy et Gaim.*, Voy. de l'Astr. pl. 26. f. 36, 37.

B. testâ minimâ, solidiusculâ, cylindraceâ, extremitatibus truncatâ, albâ, anticè striatâ. Long. 5 lin., lat. 3 lin.

Shell small, rather solid, cylindrical, ends truncated, white, anteriorly striated. Length 5 lines, width 3 lines.

Anterior extremity of shell transversely striated, with about twenty lines; the rest of the shell is smooth, with the exception of the longitudinal lines of growth.

New Holland, Port Saint George. *Mus. Cuming.*

66. *BULLA FUSCA* (pl. cxxiv. f. 94), *Adams.*

B. testâ ovato-globosâ, infrâ subventricosâ, tenui, semiopacâ, longitudinaliter obliquè striatâ, lineis transversis exilissimis, intùs fuscâ.

Shell globosely ovate, inferiorly subventricose, thin, semiopaque, longitudinally obliquely striated, with very fine transverse lines, internally fuscous.

Cagayan, Island of Mindanao, 25 fathoms; sandy mud. *Cuming.*

67. *BULLA CONSTRICTA* (pl. cxxiv. f. 95), *Adams.*

B. testâ ovato-oblongâ, versus spiram angustatâ, impressione lineari constrictâ, anticè productâ, tenui, pellucidâ, corneâ, subfuscâ, lineis transversis exilissimis, longitudinaliter substriatâ.

Shell oblong, ovate, narrowed towards the spire, constricted with a linear impression, anteriorly produced, thin, pellucid, horny, subfuscous, with very fine transverse lines, longitudinally somewhat striated.

Philippines. Sorsogon, Luzon; sandy mud, at low water. *Cuming.*

68. *BULLA GLABRA* (pl. cxxiv. f. 96), *Adams.*

B. testâ ovato-cylindraceâ, lævi, solidiusculâ, albâ, nitidâ, extremitatibus subtruncatis rotundatis, transversim totâ striatâ, striis inculptis, subdistantibus; aperturâ anticè dilatâtâ.

Shell ovately cylindrical, smooth, rather solid, white, shining, extremities subtruncated, rounded, entirely transversely striated, striæ engraved, rather wide apart; aperture anteriorly dilated.

*Hab.* —? *Mus. Cuming.*



69. BULLA AMBIGUA (pl. cxxiv. f. 97), *Adams*.

B. testâ ovato-cylindraceâ, albâ, pellucidâ, anticè attenuatâ, totâ transversè striatâ, striis insculptis, distantibus; labro sub-arcuato.

Shell ovately cylindrical, white, pellucid, anteriorly attenuated, entirely transversely striated, striæ engraved, wide apart; outer lip somewhat arched.

Port King George, New Ireland. *Mus. Cuming*.

70. BULLA SINENSIS (pl. cxxiv. f. 98), *Adams*.

B. testâ subovali, apertâ, semiopacâ, albâ, longitudinaliter substriatâ, lineis transversis insculptis, subdistantibus; aperturâ valdè apertâ, anticè dilatâtâ, posticè productâ.

Shell somewhat oval, open, semiopaque, white, longitudinally substriated, with transverse engraved lines rather wide apart; aperture very wide, anteriorly dilated, posteriorly produced.

China Seas. *Mus. Cuming*.

71. BULLA FLAVESCENS (pl. cxxiv. f. 99), *Adams*.

B. testâ parvâ, subovali, anticè semitruncatâ, subflavâ, pellucidâ, longitudinaliter substriatâ, lineis minutissimis transversis creberrimis; labro posticè angulato, rotundato.

Shell small, suboval, anteriorly semitruncated, yellowish, pellucid, longitudinally substriated, with very minute transverse lines very close together; outer lip posteriorly angled and rounded.

*Hab.* —? *Mus. Cuming*.

72. BULLA CURTA (pl. cxxiv. f. 100), *Adams*.

B. testâ elongato-cylindraceâ, tenui, pellucidâ, albâ, extremitatibus truncatis, totâ transversè striatâ, striis insculptis, subdistantibus; labro recto posticè producto.

Shell elongately cylindrical, thin, pellucid, white, extremities truncated, entirely transversely striated, striæ engraved, rather wide apart; outer lip straight, posteriorly produced.

*Hab.* —? *Mus. Cuming*.

73. BULLA PAPYRUS (pl. cxxiv. f. 101), *Adams*.

B. testâ cylindricâ, papyriformi, anticè vix dilatâtâ, albâ, subpellucidâ, extremitatibus truncatis, subrotundatis, longitudinaliter



substriatâ, lineis inculptis transversis totâ obtectâ, lineis subdis-  
tantibus.

Shell cylindrical, in form of a roll of paper, anteriorly slightly dilated, white, semipellucid, extremities truncated, slightly rounded, longitudinally somewhat striated, entirely covered with transverse engraved lines, lines rather wide apart.

Shores of Borneo. *Mus. Cuming.*

74. BULLA VITREA (pl. cxxiv. f. 102), *Adams.*

B. testâ ovato-cylindraceâ, albâ, pellucidâ, longitudinaliter substriatâ, sub lente minutissimè transversim striatâ; labro subrecto, posticè producto, rotundato.

Shell ovately cylindrical, white, pellucid, longitudinally substriated, under the lens very finely transversely striated; outer lip rather straight, posteriorly produced and rounded.

Cagayan, Island of Mindanao; Island of Luzon; sands. *Cuming.*

75. BULLA TENERA (pl. cxxiv. f. 103), *Adams.*

B. testâ obliquè subovali, corneâ, pellucidâ, longitudinaliter valde striatâ, subviridi, minutissimis lineis transversis; labro recto, posticè rotundato.

Shell obliquely oval, horny, pellucid, longitudinally strongly striated, rather green, with very minute transverse lines; outer lip straight, posteriorly rounded.

*Hab.* —? *Mus. Cuming.*

76. BULLA TENELLA (pl. cxxiv. f. 104), *Adams.*

B. testâ ovali, anticè subangustatâ, tenui, fragilissimâ, corneâ, pellucidâ, in medio subgibbosâ, longitudinaliter substriatâ, transversim irregulariter liratâ, lineis minutissimis transversis; labro in medio subangulato, posticè producto, rotundato.

Shell oval, anteriorly somewhat narrowed, thin, fragile, horny, pellucid, somewhat gibbous in the middle, longitudinally substriated, with transverse irregular ridges and very fine lines; outer lip rather angulated in the middle, posteriorly produced and rounded.

*Hab.* —? *Mus. Cuming.*

77. BULLA ROTUNDATA (pl. cxxiv. f. 105), *Adams.*

B. testâ rotundato-ovali, tenui, corneâ, subpellucidâ, utrinque



rotundatâ, longitudinaliter striatâ, sub lente lineis transversis minutissimis; labro æqualiter arcuato.

Shell roundly ovate, thin, horny, semipellucid, rounded at both ends, longitudinally striated under the lens, with very fine transverse lines; outer lip equally arched.

*Hab.* —? *Mus. Cuming.*

78. *BULLA SUCCINEA* (pl. cxxiv. f. 106), *Conrad*, Proc. Acad. Nat. Sc. Phil. 1846. Feb. pl. i. f. 5.

B. testâ cylindricâ, pertenui, diaphanâ, succineâ, lineis confertis transversis cinctâ; columellâ concavâ, ad basin canaliculatâ; labro recto, posticè producto.

Shell cylindrical, very thin, diaphanous, of an amber colour, marked with crowded minute revolving wrinkled lines; columella concave or channelled towards the base; outer lip straight, the hind margin above the line of the apex.

Tampa Bay. *Mus. Metcalfe.*

78 a. *BULLA CASTANEA* (pl. cxxiv. f. 106 a), *Adams.*

B. testâ solidâ, oblongo-ovali; spirâ umbilicatâ, albidâ, epidermide fusco-ferrugineâ tectâ, lineolis creberrimis transversis sub lente insculptâ, lineis anticis conspicuis, distantioribus, longitudinaliter substriatâ; labio anticè albo, incrassato; aperturâ intus albidâ.

Shell solid, oblong, oval; spire umbilicated, whitish, covered with a brown ferruginous epidermis, engraved (under the lens) with very fine close-set lines, the anterior ones very distinct and wide apart, longitudinally substriated; inner lip anteriorly white and thickened; aperture white within.

Shores of New Zealand; 4 fathoms, mud.

#### SUB-GENUS ATYS.

79. *BULLA NAUCUM* (pl. cxxiv. f. 107-109), *Linn.*, Gmel. p. 3424.

B. testâ rotundatâ, pellucidâ, utrinque subumbilicatâ, undique transversim striatâ, albâ.

Shell rounded, pellucid, somewhat umbilicated at both ends, transversely striated throughout, white.

Philippines, Bornco; on muddy sand-banks. *Cuming.*



80. *BULLA FERRUGINOSA* (pl. cxxiv. f. 110), *Chemn.*, Hist. Conch. i. t. 22. f. 209, 210.

B. testâ ovoideâ, tenui, fragili, leviter umbilicatâ, utrinque transversim striatâ, maculis ferrugineis undulatis longitudinaliter ornatâ.

Shell ovoid, thin, fragile, slightly umbilicated, transversely striated at both ends, marked with undulated rust-coloured bands in a longitudinal direction.

*Hab.* —? *Mus. Cuming.*

81. *BULLA OVOIDEA* (pl. cxxiv. f. 111), *Quoy et Gaim.*, Voy. de l'Astr. pl. 26. f. 17, 18.

B. testâ ovatâ, fragili, albâ, leviter umbilicatâ, anticè transversim striatâ, striis tenuissimis, longitudinalibus.

Shell ovate, fragile, white, slightly umbilicated, anteriorly transversely striated, and with very fine longitudinal striae.

Animal yellowish-green, with brown blotches, and one tongue-shaped marking on the head between the eyes.

Island of Guam, Australia; *J. B. Jukes, Esq. Mus. Cuming.*

82. *BULLA SOLIDA* (pl. cxxiv. f. 112, 113), *Brug.*, Enc. Méth. vol. i. p. 374.

B. testâ oblongo-ovatâ, albâ, solidâ, epidermide subfuscâ tectâ, utrinque valdè transversè striatâ; ultimo anfractu in medio obtusè carinato; labro posticè tortuoso, producto, in medio subangulato; labio anticè vix plicato.

Shell ovately oblong, white, solid, covered with a light brown epidermis, strongly transversely grooved at each end, smooth in the middle, the last whorl obtusely carinated in the middle; outer lip posteriorly twisted and produced, rather angled in the middle; inner lip anteriorly with a slight fold.

Philippines. *Cuming.*

83. *BULLA CYLINDRICA* (pl. cxxv. f. 114), *Helblings*, *Chemn.* x. t. 146. f. 1356, 1357. *Bulla cylindrica*, *Brug.*

B. testâ cylindricâ, elongatâ, involutâ, albâ, in vertice umbilicatâ; areâ anticâ et posticâ transversim striatâ, intermediâ glabrâ; aperturâ oblongâ; columellâ sinuosâ; labio replicato.

Shell cylindrical, elongated, involute, white; apex umbilicated,



anteriorly and posteriorly striated, intermediate space smooth ; aperture oblong ; columella sinuous ; inner lip reflected.

Pasacao, Island of Luzon ; sandy mud, low water. *Cuming*.

84. *BULLA CRANCHII* (pl. cxxv. f. 115), *Leach*, MS.  
B. *Utriculus*, *Brosch*. B. *intermedia*, *Aradas*.

B. testâ ovatâ, subsolidiori, perforatâ, corneo-flavescente, striis transversis punctatis, subflexuosis ; vertice profundè umbilicato ; labio anticè subtruncato.

Shell ovate, rather solid, umbilicated, yellowish horn-colour, with numerous transverse, rather wavy, punctated striæ ; apex deeply umbilicated ; inner lip anteriorly somewhat truncated.

Salcomb bay, Devon. *Mus. Cuming*.

85. *BULLA SUCCISA* (pl. cxxv. f. 116), *Ehrenberg*, Symb. Phys.

B. testâ oblongo-ovatâ, tenui, utrinque transversè striatâ, albâ ; labro prope spiram inclusam uniplicato, altero fine truncato. Long 5 lin., lat. 3 lin.

Shell ovately oblong, thin, transversely striated at both ends, white ; outer lip near the spire with a single fold, the other end truncated. Length 5 lines, width 3 lines.

Shores of the Red Sea. *Mus. Cuming*.

86. *BULLA TRUNCATULA* (pl. cxxv. f. 117), *Brug.*, Phil. En. Moll. Sicil. t. 7. f. 21. B. *umbilicata*, *Montag*.

B. testâ minutâ, oblongâ, subcylindricâ, lævissimâ, lacteâ ; vertice rotundato ; columellâ basi subtruncatâ.

Shell small, oblong, subcylindrical, very smooth, white ; apex rounded ; columella somewhat truncated at the base.

Sicily. *Mus. Cuming*.

87. *BULLA OVULATA* (pl. cxxv. f. 118), *Broch.*, p. 277. t. 1. f. 8.

B. testâ parvâ, cylindrico-oblongâ, hyalinâ, striis subtilissimis transversis (oculo nudo non conspicuis) exaratâ ; apice obtuso, umbilicato ; columellâ infernè obsoletè uniplicatâ.

Shell small, cylindrically oblong, hyaline, marked with very fine transverse striæ (not visible to the naked eye) ; apex obtuse, umbilicated ; columella inferiorly with a single obsolete plait.

Sicily. *Mus. Cuming*.



88. *BULLA HIEMALIS* (pl. cxxv. f. 119), *Couthouy*, Bost. Journ. Nat. Hist. vol. ii. p. 180. pl. 4. f. 5.

B. testâ perparvâ, hyalinâ, globosâ, fragili, convolutâ, longitudinaliter tenuè striatâ; spirâ nullâ; aperturâ supernè angustâ, ad basin valdè dilatâtâ; columellâ subarcuatâ, reflexâ, umbilicatâ.

Shell very small, hyaline, globose, fragile, convoluted, longitudinally finely striated; spire none; aperture narrow above, greatly dilated at the base; columella somewhat arched, reflected, umbilicated. Length  $\frac{1}{10}$  in., width  $\frac{1}{10}$  in.

Massachusetts Bay, U. S.

89. *BULLA TORTUOSA* (pl. cxxv. f. 120), *Adams*.

B. testâ ovoideâ, utrinque valdè productâ, flavescente, pellucidâ, perforatâ, anticè et posticè transversim striatâ; labro posticè valdè tortuoso; labio recto, uniplicato.

Shell ovoid, produced at both ends, yellowish, pellucid, umbilicated, anteriorly and posteriorly transversely striated; outer lip posteriorly strongly twisted; inner lip anteriorly straight, with a single fold.

Island of Camagueng, Philippines; 30 fathoms, sandy mud. *Mus. Cuming*.

90. *BULLA ELONGATA* (pl. cxxv. f. 121), *Adams*.

B. testâ subcylindricâ, anticè angustiore, albâ, subpellucidâ, nitidâ, anticè et posticè transversim striatâ, intermediâ glabrâ; labro posticè valdè tortuoso et producto; labio anticè planiusculo, vix plicato.

Shell subcylindrical, narrower anteriorly, white, subpellucid, shining, anteriorly and posteriorly transversely striated, the intermediate space polished; outer lip posteriorly strongly twisted and produced; inner lip anteriorly rather flattened, with a slight fold.

Ceylon. *Dr. Sibbold*. Island of Zebu, Philippines. *Cuming*.

91. *BULLA SPECIOSA* (pl. cxxv. f. 122), *Adams*.

B. testâ ovali, perforatâ, posticè angustatâ, subtruncatâ, anticè rotundatâ, ventricosâ, albâ, semiopacâ, nitidâ, longitudinaliter supernè valdè striatâ, infernè striis evanidis utrinque transversè striatâ; labro intus incrassato, posticè tortuoso, uniplicato; labio reflexo, anticè subplicato.

Shell oval, perforated, posteriorly narrowed and subtruncated, anteriorly rounded and ventricose, white, semiopaque, shining, longitudinally superiorly strongly striated, inferior striæ evanes-



cent, transversely striated at both ends; outer lip thickened within, posteriorly twisted, with a single plait; inner lip reflexed, anteriorly semiplicated.

*Hab.* — ? *Mus. Metcalfe.*

92. *BULLA MONODONTA* (pl. cxxv. f. 123), *Adams.*

B. testâ subcylindricâ, posticè subtruncatâ, anticè productâ, solidâ, opacâ, longitudinaliter sulcatâ; labro in medio inflexo; labio anticè valdè truncato, in plicâ dentiformi desinente.

Shell subcylindrical, posteriorly subtruncated, anteriorly produced, solid, opaque, longitudinally grooved; outer lip inflexed in the middle; inner lip strongly truncated anteriorly, and ending in a dentiform plate.

Shores of Borneo. *Mus. Cuming.*

93. *BULLA DENTIFERA* (pl. cxxv. f. 124), *Adams.*

B. testâ ovoideâ, posticè subtruncatâ, anticè productâ, corneâ, pellucidâ, longitudinaliter sulcatâ; labro simplici, acuto; labio anticè valdè truncato, in plicâ dentiformi desinente.

Shell ovoid, posteriorly subtruncated, anteriorly produced, horny, pellucid, longitudinally sulcated; outer lip simple, acute; inner lip anteriorly strongly truncated, ending in a dentiform plate.

Lord Hood's Island; found on *Avicula margaritifera*. *Cuming. Mus. Cuming.*

94. *BULLA NONSCRIPTA* (pl. cxxv. f. 125), *Adams.*

B. testâ ovato-cylindricâ, albâ, subpellucidâ, longitudinaliter striatâ, posticè subtruncatâ, anticè productâ; labro subrecto; labio anticè valdè truncato, in plicâ dentiformi desinente.

Shell ovately cylindrical, white, subpellucid, longitudinally striated, posteriorly subtruncated, anteriorly produced; outer lip rather straight; inner lip anteriorly strongly truncated, ending in a tooth-like plait.

95. *BULLA ALICULA* (pl. cxxv. f. 126), *Alicula cylindrica, Ehrenberg, Symb. Phys. t. 4. f. 6.*

B. testâ semipollicari, subcylindricâ, tenui, antico et postico fine transversè striatâ, hyalinâ; soleâ exustâ, albâ; labro medio non reflexo, supernè uniplicato, altero fine rotundato. Animale flavicante; scuto capitis et alarum margine lætè viridibus; capite rhomboide, subacuto.



Shell half an inch in length, subcylindrical, thin, the anterior and posterior ends transversely striated, hyaline; the under part brownish white; outer lip not reflexed in the middle, with a single fold above, the other end rounded. Animal yellowish; the head and dilated sides of the foot light green; head rhomboid, subacute.

Near Suez and Djedda, Red Sea. *Mus. Cuming.*

96. *BULLA NITIDA* (pl. cxxv. f. 127), *Adams.*

B. testâ perparvâ, obovatâ, albâ, opacâ, nitidâ, basi dilatâtâ, vertice rotundato, profundè umbilicato, supernè et infernè transversim striatâ; aperturâ supernè productâ, angustâ, infernè dilatâtâ; columellâ simplici, reflexâ; umbilico parvo; labro supernè rotundato, arcuato.

Shell very small, obovate, white, opaque, shining, dilated at the base, apex rounded and deeply umbilicated, transversely striated above and below; aperture produced above and narrow, inferiorly dilated; columella simple, reflected; umbilicus small; outer lip rounded superiorly and arched.

Shores of Borneo. *Mus. Cuming.*

97. *BULLA PYRIFORMIS* (pl. cxxv. f. 128), *Adams.*

B. testâ parvâ, obovatâ, basi valdè dilatâtâ, gibbosulâ, nitidâ, lævi, albâ, pellucidâ, apice truncatâ, obsoletè longitudinaliter sulcatâ, supernè et infernè transversim striatâ; spirâ non manifestâ, vertice subumbilicato; aperturâ supernè angustâ, infernè valdè dilatâtâ; labio externo, supernè acutè truncato; columellâ reflexâ, in mediò subcallosâ; umbilico profundo.

Shell small, obovate, greatly dilated at the base, gibbose, shining, white, smooth, pellucid, apex truncated, obsoletely longitudinally sulcated, above and below transversely striated; spire not visible, apex slightly umbilicated; aperture narrowed above, and greatly dilated below; outer lip acutely truncated above; columella reflected, rather callous in the middle; umbilicus deep.

China Sea. *Mus. Cuming.*

98. *BULLA EXIGUA* (pl. cxxv. f. 129), *Adams.*

B. testâ parvâ, elongato-ovali, posticè angustâtâ, albâ, nitidâ, longitudinaliter substriatâ, sub lente minutissimè striatâ; aperturâ angustâ, lineari, anticè dilatâtâ; labro posticè producto, flexuoso; labio subcalloso.



Shell small, elongately oval, posteriorly narrowed, white, shining, longitudinally substriated, under the lens very minutely striated; aperture narrow, linear, anteriorly dilated; outer lip posteriorly produced, flexuous; inner lip subcallous.

Port Lincoln. *Mus. Metcalfe*.

99. *BULLA PARVULA* (pl. cxxv. f. 130), *Adams*.

B. testâ parvâ, ovali, albâ, nitidâ, transversim totâ striatâ, striis confertis; labro arcuato, posticè producto, anticè dilatato; labio vix tortuoso, subtruncato.

Shell small, oval, white, shining, transversely entirely striated, striæ close together; outer lip arched, posteriorly produced, anteriorly dilated; inner lip slightly tortuous, subtruncated.

Port Lincoln. *Mus. Metcalfe*.

100. *BULLA HORDEACEA* (pl. cxxv. f. 131), *Adams*.

B. testâ parvâ, ovali, albâ, nitidâ, transversim valdè totâ striatâ, striis subdistantibus; labro arcuato, posticè productâ, anticè rotundato; labio anticè valdè tortuoso, subtruncato.

Shell small, oval, white, shining, transversely strongly entirely striated, striæ rather wide apart; outer lip arched, posteriorly produced, anteriorly rounded; inner lip anteriorly strongly twisted, subtruncated.

Port Lincoln, Australia. *Mus. Metcalfe*.

SUB-GENUS CYLICHNA.

101. *BULLA CYLINDRACEA* (pl. cxxv. f. 132), *Pennant*, Zool. Brit. vol. iv. pl. 73. f. 5, 6. B. convoluta, *Brocchi*. B. oliva, *Gmelin*.

B. testâ cylindricâ, lævi, albâ; aperturâ lineari, basin versus parùm dilatatâ; vertice obtuso, perforato; striis transversis nullis (aut evanidis); columellâ callosâ, unipicatâ.

Shell cylindrical, smooth, white; aperture linear, slightly dilated towards the base; apex obtuse, perforated; transverse striæ obsolete, or none; columella callous, with a single plait.

British Islands.

102. *BULLA ARACHIS* (pl. cxxv. f. 133, 134), *Quoy*, Voy. de l'Astrolabe.

B. testâ solidâ, longo-cylindricâ, transversim tenuissimè striatâ,



albă, epidermide cinnamomeă tectă; spiră perforată. Long. 8 lin., lat.  $3\frac{1}{2}$  lin.

Shell solid, elongately cylindrical, transversely finely striated, white, covered with a reddish-brown epidermis; spire perforated. Length 8 lines, width  $3\frac{1}{2}$  lines.

New Holland; Port St. George.

103. *BULLA SARSII* (pl. cxxv. f. 135), *Philippi*.

B. testă ovato-cylindraceă, posticè truncată, anticè productă, apice perforată, albă, transversim tenuissimè striată; apertură îngustă; columellă anticè uniplicată; labro posticè producto.

Shell ovately cylindrical, posteriorly truncate, anteriorly produced, apex perforated, white, transversely very finely striated; aperture narrow; columella anteriorly with a single fold; outer lip posteriorly produced.

*Hab.* —? *Mus. Hanley*.

104. *BULLA OCCULTA* (pl. cxxv. f. 136), *Mighels*, Bost. Journ. Nat. Hist. vol. iv. p. 54. pl. iv. f. 11.

B. testă parvă, albă, ovato-cylindrică, striis minutissimis transversis et striis longitudinalibus incrementi tectă; spiră occultă; labro suprà elevato, medio recto; apertură subangustă, infra lată, rotundată.

Shell small, white, ovately cylindrical, covered with very minute transverse striæ and longitudinal lines of growth; spire concealed; outer lip elevated above, straight in the middle; aperture rather narrow, anteriorly broad and rounded. Length  $\frac{1}{2}$  in., width  $\frac{3}{20}$  in.

New England.

105. *BULLA ALBA* (pl. cxxv. f. 137), *Brown*.

B. testă ovato-cylindraceă, albă, apice immerso, callo columellari oblecto, longitudinaliter substriată, transversim sub lente subtilissimè striată; apertură îngustă; labro arcuato; labio anticè recto, uniplicato.

Shell ovately cylindrical, white, apex sunken, covered by the columellar callus, longitudinally substriated; aperture narrow; outer lip arched; inner lip anteriorly straight, with a single, oblique, rather obsolete plait. Under the lens the shell is finely striated transversely.

British Islands. *Mus. Hanley*.



106. *BULLA CORTICATA* (pl. cxxv. f. 138), *Möller*, Ind. Moll. Grœnland. p. 79.

B. testâ cylindricâ, imperforatâ, solidiore, fulvâ, striis longitudinalibus undulatis minutissimis ornatâ; apice immerso, callo columellari oblecto.

Shell cylindrical, imperforate, rather solid, fulvous, with very minute longitudinal undulated lines; apex sunken, covered by the umbilical callus.

Greenland. *Mus. Cuming*.

107. *BULLA TRITICEA* (pl. cxxv. f. 139), *Courthouy*, Bost. Journ. Nat. Hist.

B. testâ parvulâ, cylindricâ, umbilico oblecto, solidiore, epidermide subfuscâ oblectâ, transversim sub lente subtilissimè striatâ; apice immerso, callo columellari oblecto; aperturâ angustâ, sublineari, ad basin dilatatâ.

Shell small, cylindrical, umbilicus covered, rather solid, covered with a brownish epidermis under the lens, very finely transversely striated; apex covered with the columellar callus; aperture narrow, somewhat linear, dilated at the base.

Massachusetts, U. S. *Mus. Cuming*.

108. *BULLA UMBILICATA* (pl. cxxv. f. 140), *Montagu*.

B. testâ ovato-cylindraccâ, albâ, lævi, longitudinaliter substriatâ, apice umbilicato, anticè subacuminatâ; aperturâ angustâ, anticè dilatatâ; labio anticè uniplicato.

Shell ovately cylindrical, white, smooth, longitudinally substriated, apex umbilicated, shell anteriorly rather narrowed; aperture narrow, anteriorly dilated; inner lip anteriorly with a single plait.

British Islands. *Mus. Hanley*.

109. *BULLA STRIGELLA* (pl. cxxv. f. 141), *Lovén*, Ind. Moll. Scand. p. 10.

B. testâ cylindraccâ, posticè subtruncatâ, striis spiralibus tenuissimis undulosis sculptâ; apice umbilicato, minuto, tereti, profundo, perforato, peromphalo solido, niveo; labro parùm recedente; columellâ callosâ, plicâ distinctâ; aut nudâ, nitidâ, aut epidermide fuscâ tectâ.

Shell cylindrical, posteriorly somewhat rounded, engraved with very fine undulating transverse striæ; apex minutely teretely um-



bilicated, deeply perforated, peromphalus solid, white; outer lip a little receding; columella callous, fold distinct; either nude and shining, or covered with a fuscous epidermis.

Scandinavia. Cagayan; 25 fathoms, sandy mud, *H. C. Mus. Cuming.*

110. *BULLA CONCINNA* (pl. cxxv. f. 142), *Adams.*

B. testâ ovato-cylindraceutâ, infernè subacuminatâ, albâ, nitidâ, opacâ, transversim spiraliter minutissimè striatâ; apice profundo, umbilicato; aperturâ lineari, infrâ parùm dilatâtâ; columellâ vix sinuosâ, plicâ evanidâ; labro producto, apicem desinente.

Shell ovately cylindrical, below somewhat acuminate, white, shining, opaque, very minutely transversely spirally striated; apex deeply umbilicated; aperture linear, a little dilated below; columella slightly sinuous, plait obsolete; outer lip produced, extending beyond the apex.

Manila; 3 fathoms, sandy mud. *Cuming.*

111. *BULLA BIPLICATA* (pl. cxxv. f. 143), *Adams.*

B. testâ cylindraceutâ, gracili, posticè subrotundatâ, striis spirali-bus distantioribus sculptâ; apice profundè umbilicato; aperturâ angustâ, lineari, suprâ productâ, infrâ dilatâtâ; columellâ callosâ, buplicatâ; epidermide subfuscâ tenuè tectâ.

Shell cylindrical, slender, posteriorly somewhat rounded, engraved with rather distant spiral striæ; apex deeply umbilicated; aperture narrow, linear, produced above, dilated below; columella callous, with two plaits; covered with a reddish-brown epidermis.

China Sea. *Mus. Cuming.*

112. *BULLA BREVISSIMA* (pl. cxxv. f. 144), *Adams.*

B. testâ ovato-cylindricâ, in medio parùm obstrictâ, transversim spiraliter striatâ; apice umbilicato, umbilico callo columellari sub-obtecto; aperturâ angustâ, lineari, in medio coarctatâ, supernè productâ, infernè dilatâtâ; columellâ reflexâ, subcallosâ.

Shell ovately cylindrical, a little contracted in the middle, transversely spirally striated; apex umbilicated, umbilicus partly covered by the columellar callus; aperture narrow, linear, contracted in the middle, above produced, below dilated; columella reflexed, rather callous.

China Sea. *Mus. Cuming.*



113. *BULLA MARMORATA* (pl. cxxv. f. 145), *Adams*.

B. testâ ovatâ, suprâ coarctatâ, infrâ productâ, subacuminatâ, lævi, nitidâ, pallidè rufo-fuscâ albâque variegatâ, maculis nunc in fasciis dispositis, transversim minutissimè striatâ; striis distinctioribus supernè et infernè; spirâ conspicuâ, in umbilico profundo; aperturâ angustâ, infrâ et suprâ acuminatè productâ; columellâ rectâ, subcallosâ, umbilico distincto.

Shell ovate, contracted above, produced and rather acuminate below, smooth, shining, variegated with pale red-brown and white, the spots in some specimens disposed in distinct bands, transversely very minutely striated; striæ most distinct above and below; spire conspicuous, in the deep umbilicus of the apex; aperture narrow, acuminately produced above and below; columella straight, rather callous, umbilicus distinct.

Island of Capul, Philippines. *Cuming*.

114. *BULLA CONCENTRICA* (pl. cxxv. f. 146), *Adams*.

B. testâ parvâ, subcylindricâ, elongatâ, basi vix dilatâtâ, albâ, longitudinaliter semisulcatâ, striis transversis valdè distinctis sculptâ; spirâ manifestâ, in apice immersâ, peromphalo radiatim striato; aperturâ angustâ, lineari, supernè productâ, infernè dilatâtâ; columellâ simplici.

Shell small, subcylindrical, elongated, a little dilated at the base, white, longitudinally somewhat sulcated, engraved with very distinct transverse striæ; spire conspicuous, immersed in the apex, peromphalus radiately striated; aperture narrow, linear, produced above, dilated below; columella simple.

Cagayan, Philippines. *Mus. Cuming*.

115. *BULLA DECUSSATA* (pl. cxxv. f. 147), *Adams*.

B. testâ parvâ, subcylindricâ, elongatâ, basi vix dilatâtâ, albâ, striis transversis et longitudinalibus decussatâ; spirâ manifestâ, in umbilico immersâ, peromphalo radiatim striato; aperturâ angustâ, lineari, supernè productâ, infernè dilatâtâ; columellâ simplici.

Shell small, subcylindrical, elongated, slightly dilated at the base, white, crossed with longitudinal and transverse striæ; spire conspicuous, immersed in the umbilicated apex, peromphalus radiately striated; aperture narrow, linear, produced superiorly, dilated below; columella simple.

China Sea. *Mus. Cuming*.



116. *BULLA BIZONA* (pl. cxxv. f. 148), *Adams*.

B. testâ ovato-cylindricâ, fulvâ, fasciis duabus pallidè rubris cinctâ, longitudinaliter obsolete plicatâ; striis distinctis transversis creberrimis sculptâ; spirâ manifestâ, in umbilico profundissimo immersâ; aperturâ supernè productâ, lineari, infernè dilatâ; columellâ semiplicatâ, subreflexâ, umbilico obtecto; labio externo suprâ inflexo.

Shell ovately cylindrical, fulvous, encircled with two pale red-brown bands, longitudinally obsoletely plicated, engraved with distinct transverse finely undulated striae; spire conspicuous, immersed in the deep umbilicus of the apex; aperture produced above, linear, dilated inferiorly; columella slightly plicated, rather reflected, umbilicus covered; outer lip inflexed superiorly.

China Sea. *Mus. Cuming*.

117. *BULLA PYRAMIDATA* (pl. cxxv. f. 149), *Adams*.

B. testâ subcylindricâ, suprâ acuminatâ, basi vix dilatâ, albâ, nitidâ, longitudinaliter sulcatâ, supernè et infernè transversim substriatâ; spirâ parùm manifestâ, vertice profundè umbilicato; aperturâ angustè lineari, suprâ productâ, infrâ dilatâ; columellâ reflexâ, subcallosâ; umbilico obtecto.

Shell subcylindrical, acuminate above, hardly dilated at the base, white, shining, longitudinally grooved, faintly striated transversely above and below; spire hardly obvious, apex deeply umbilicated; aperture narrowly linear, produced above, dilated below; columella reflected, rather callous, umbilicus covered.

China Sea. *Mus. Cuming*.

118. *BULLA PYGMÆA* (pl. cxxv. f. 150), *Adams*.

B. testâ parvâ, subcylindricâ, in medio constrictâ, apice umbilicatâ, albâ, nitidâ, levi, longitudinaliter striatâ; labro posticè producto, rotundato, in medio inflexo; labio anticè subcalloso; aperturâ angustâ, lineari, anticè dilatâ.

Shell small, subcylindrical, contracted in the middle, apex umbilicated, white, shining, smooth, longitudinally striated; outer lip posteriorly produced, rounded, inflexed in the middle; inner lip anteriorly subcallous; aperture narrow, linear, anteriorly dilated.

Port Lincoln. *Mus. Metcalfe*.

119. *BULLA INVOLUTA* (pl. cxxv. f. 151), *Adams*.

B. testâ cylindricâ, posticè truncatâ, albâ, solidâ, transversim



totâ striatâ ; aperturâ angustâ, lineari ; labro recto, ejus angulo producto, rotundato ; labio anticè tortuoso, uniplicato.

Shell cylindrical, posteriorly truncated, white, solid, transversely entirely striated ; aperture narrow, linear ; outer lip straight, its angle produced, rounded ; inner lip anteriorly tortuous, with a single fold.

China Seas. *Mus. Cuming.*

#### SUB-GENUS VOLVULA.

120. *BULLA ACUMINATA* (pl. cxxv. f. 152), *Brug.*, Enc. Méth. vol. i. p. 376. *Phil.*, En. t. 7. f. 18.

B. testâ minutâ, lævissimâ, subcylindricâ, utrinque rostratâ ; spirâ occultâ, supernè parùm attenuatâ ; aperturâ angustè lineari, infernè perparùm latiore ; columellâ basi obsoletè uniplicatâ.

Shell minute, very smooth, subcylindrical, beaked at both ends ; spire concealed, above attenuated ; aperture narrowly linear, rather wider below ; columella with a single obsolete plait at the base.

Shores of Sicily. *Mus. H. Adams.*

121. *BULLA ANGUSTATA* (pl. cxxv. f. 153), *Adams.*

B. testâ cylindricâ, utrinque rostratâ, lævi, nitidâ, albâ, longitudinaliter substriatâ ; spirâ occultâ ; aperturâ lineari, in medio angustatâ, supernè productâ, infernè dilatatâ ; labro in medio coarctato ; labio uniplicato.

Shell cylindrical, beaked at both ends, smooth, shining, white, longitudinally substriated ; spire concealed ; aperture linear, narrowed in the middle, produced above, dilated below ; outer lip contracted in the middle ; inner lip with a single fold.

Cagayan, Mindanao ; 25 fathoms. *Cuming.*

122. *BULLA ROSTRATA* (pl. cxxv. f. 154), *Adams.*

B. testâ elongato-ovali, albâ, pellucidâ, utrinque rostratâ, longitudinaliter substriatâ, transversim sub lente minutissimè striatâ ; aperturâ angustâ, lineari ; labro æqualiter arcuato ; columellâ tortuosâ, uniplicatâ.

Shell elongately oval, white, pellucid, beaked at both ends, longitudinally substriated, transversely (under the lens) very minutely striated ; aperture narrow, linear ; outer lip equally arched ; columella tortuous, with a single plait.

Port Lincoln. *Mus. Metcalfe.*



123. *BULLA EBURNEA* (pl. cxxv. f. 155), *Adams*.

B. testâ ovato-cylindraceâ, albâ, lævi, solidâ, nitidâ, infernè transversim striatâ, utrinque rostratâ; aperturâ sublineari, posticè angustatâ, anticè dilatâtâ; labro posticè inflexo; labio calloso; umbilico nullo.

Shell ovately cylindrical, white, smooth, solid, shining, inferiorly transversely striated, beaked at both ends; aperture narrow posteriorly, dilated anteriorly; outer lip posteriorly inflexed; inner lip callous; umbilicus none.

China Sea. *Mus. Cuming*.

124. *BULLA STRIATULA* (pl. cxx<sup>v</sup>. f. 156), *Adams*.

B. testâ parvâ, ovato-cylindraceâ, albâ, totâ transversim striatâ, utrinque rostratâ; spirâ occultâ; aperturâ lineari, anticè subdilatâtâ; labro subrecto, vix inflexo in medio; labio anticè valdè tortuoso, uniplicato.

Shell small, ovately cylindrical, beaked at both ends, entirely transversely striated; spire concealed; aperture linear, anteriorly slightly dilated; outer lip straight, slightly inflexed in the middle; inner lip strongly twisted, with a single plait.

China Seas. *Mus. Cuming*.

SUB-GENUS *LINTERIA*.125. *BULLA VIRIDIS* (pl. cxxi. f. 52), *Rang, Quoy et Gaim.*, Voy. de l'Astr. pl. xxvi. f. 13-16. B. calyculata, *Brod. and Sowerby*.

B. testâ ovali, apertâ, vix involutâ, longitrorsum tenuissimè striatâ, viridi; unguiculo albo ad spiram.

Shell oval, open, scarcely involute, longitudinally very finely striated, green; a white unguiculate appendage at the spire. Length 4 lines, width 3 lines.

Animal of a sombre green, except the edge of the head and sides of the foot, which are greenish-yellow dotted with white.

Bourbon, Guam, Japan, Pitcairn's Island; on exposed rocks at half tide. *Mus. Cuming*.

126. *BULLA GLAUCA* (pl. cxxi. f. 53), *Quoy et Gaim.*, Voy. de l'Astr. pl. xxvi. f. 10-12.

B. testâ ovali, oblongâ, pellucidâ, glaucâ, vix involutâ, longitrorsum striatâ, ad spiram unguiculatâ.



Shell oval, oblong, pellucid, glaucous, scarcely involute, longitudinally striated, unguiculate at the spire.

Animal of a clear apple-green slightly dotted with black; shell more involute, oval, and convex than *B. viridis*.

New Ireland. *Mus. Cuming.*

127. *BULLA MINOR* (pl. cxxi. f. 54), *Adams.*

*B. testâ parvulâ, pellucidâ, luteâ, tenui, lævi, ovali, apertâ, vix involutâ, longitudinaliter tenuissimè striatâ; unguiculo ad spiram.*

Shell small, pellucid, yellow, thin, smooth, oval, aperture very wide, scarcely involute, longitudinally very finely striated; an unguiculate process at the spire.

Island of Zebu; on the sands. *Cuming.*

128. *BULLA ALGIRÆ* (pl. cxxi. f. 55), *Hanley.*

*B. testâ subtrigonalî, apertâ, vix involutâ, longitudinaliter substriatâ, albâ, fragilî; labio appendiculo calyciformi, intùs subspirali; labro producto, posticè angulato, producto.*

Shell subtrigonal, open, slightly involute, longitudinally substriated, white, fragile; inner lip with a cup-shaped appendage, subspiral within; outer lip produced, posteriorly angled and produced.

Algiers; dredged by R. M'Andrew, Esq. *Mus. Hanley.*

SUB-GENUS CRYPTOPHTHALMUS.

129. *BULLA OLIVACEA* (pl. cxxi. f. 56), *Ehrenberg, Symb. Phys. t. 1. f. 2. B. smaragdina, Lenck., Rapp.*

*B. corpore smaragdino, colore dilutè viridi intermixto, tentaculis indistinctis; testâ fragilî, exiguâ, pellucidâ, albâ, vix inflexâ, columellâ spirâque destitutâ.*

Body emerald green mixed with a pale green; tentacles indistinct. Shell fragile, small, pellucid, white, hardly inflexed, destitute of columella and spire.

SUB-GENUS LOBIGER.

130. *BULLA PHILIPPI* (pl. cxxi. f. 57), *Krohn, Ann. des Scien. Nat. 3me Série. pl. ii. f. 1, 2.*

*B. testâ ovali, corneâ, fragilî, longitudinaliter substriatâ, subinvolutâ; spirâ occultâ; aperturâ amplâ, posticè productâ, rotun-*



datâ ; labro arcuato, ejus angulo superno producto, rotundato, labio tenui, subreflexo.

Shell oval, horny, thin, fragile, longitudinally substriated, slightly involute ; spire concealed ; aperture very wide, posteriorly produced and rounded ; outer lip arcuated, its upper angle produced and rounded ; inner lip thin, somewhat reflexed.

*Hab.* — ? *Mus. Cuming.*

131. *BULLA CUMINGII* (pl. cxxi. f. 58), *Adams.*

B. testâ subovali, gibbosâ, corneâ, fragili, pellucidâ, subinvolutâ ; spirâ occultâ ; aperturâ posticè productâ, angustatâ, lineari, anticè valdè dilatâtâ ; labro subsinuoso, valdè inflexo, posticè producto ; labio adhærente, subreflexo.

Shell subovate, gibbose, horny, fragile, pellucid, slightly involute ; spire concealed ; aperture posteriorly produced, narrow and linear, anteriorly greatly dilated ; outer lip slightly sinuous, greatly inflected towards the body-whorl, posteriorly produced ; inner lip adhering, slightly reflexed.

Puerto St. Elena, W. Columbia ; sandy mud, 6 fathoms. *Cuming.*

SUB-GENUS PHANEROPHTHALMUS.

132. *BULLA LUTEA* (pl. cxxv. f. 157, 158), *Quoy*, *Voy. de l'Astr.* pl. xxvi. f. 43, 44.

B. animale pallidè luteo ; testâ minimâ, fragili, albâ, ovali, apertâ, nec volvatâ, margine dextro contorto et acuto ; long. 3 lin., lat. 2 lin.

Animal of a pale yellow. Shell small, fragile, white, oval, open, not convolute ; right margin contorted and acute. Length 3 lines, breadth 2 lines.

New Guinea : Port Dorey ; on the reefs. *Quoy.*

SUB-GENUS PHILINE.

133. *BULLA QUADRIPARTITA* (pl. cxxv. f. 159). *Philine* quadripartita. *Ascanius, Chemn.* p. 146. f. 1354. *Labaria* quadriloba, *Müller.*

B. testâ ovato-rotundatâ, posticè lineâ impressionali cinctâ ; margine externo semicirculari, posticè sinuato, angulo ejus superno producto, rotundato.

Shell rotundately ovate, encircled posteriorly with an impressed



line; outer margin semicircular, posteriorly sinuated, the upper angle produced and rounded.

The plates of the gizzard are in the form of a cocked hat, or subtriangular, with the beaks bent down and slightly produced.

British Islands. *Mus. Cuming.*

134. BULLA SCHRETERI (pl. cxxv. f. 160), *Phil.*, Enc. Moll. Sicil. pl. xx. f. 2. B. aperta, *Mont.*, *Lamarck.*

B. testâ subquadrato-rotundâ; margine externo semicirculari, angulo ejus supero producto, acutangulo.

Shell subquadrately rounded; outer margin semicircular, its upper angle produced, acutangular.

The plates of the gizzard are oval, with the lateral beaks but slightly produced.

Catanuan, Luzon, *H. C. Mus. Cuming.*

135. BULLA PUNCTATA (pl. cxxv. f. 161). Bullæa punctata, *Adams*, Trans. Linn. Soc. pl. i. f. 6-8.

B. testâ ovato-oblongâ, tenuissimâ, albâ, pellucidâ, nitidâ, lineis transversis punctatis, latere columnari arcuato, apice obtuso, vix umbilicato. Long.  $\frac{1}{10}$  poll., lat. minus quam  $\frac{1}{10}$  poll.

Shell oblong, very thin, white, pellucid, glossy, marked with transverse dotted lines; inner margin arcuated; apex obtuse, with a very shallow umbilicus. Length  $\frac{1}{10}$  inch, breadth less than  $\frac{1}{10}$  inch.

Animal cinereous, approaching to black, posteriorly yellowish-white; gizzard membranaceous.

Great Britain.

136. BULLA PRUINOSA (pl. cxxv. f. 162). Bullæa pruinosa, *Clark*, Zool. Journ. 1827-28. p. 339.

B. testâ subglobosâ, niveâ, subopacâ, subtiliter reticulatâ, peripheriâ paululùm constrictâ; margine columnari arcuato, reflexo, ad mediam partem submarginato, leviter umbilicato.

Shell subglobose, subopaque, of a dead frosted white colour, delicately reticulated, appearing covered with fine gauze, circumference of the posterior or upper part somewhat constricted; columellar margin arcuated, a little reflected, and in the middle a flexure or notch; apex rather rounded and slightly umbilicated.

Animal entirely white, foot very large.

Great Britain. *Mus. H. Adams.*



137. BULLA CATENA (pl. cxxv. f. 163). *Bullæa catena*, Montag., Test. Brit. pl. vii. f. 7. *B. catenulifera*, Macgill. *B. scabra*, Müll. *B. granulosa*, Sars. *B. zonata*.

*B. testâ* oblongâ, tenuissimâ, albidâ, nitidâ, striis transversis catenatis notatâ; latere columellari arcuato; apice subobtusos, vix umbilicato.

Shell ovate, oblong, very thin, white, pellucid, shining, marked with chain-like striæ; columellar margin arcuated; apex rather obtuse, slightly umbilicated.

Animal on the upper part yellowish-white; head and lobes of the foot sprinkled with minute red-brown points; gizzard with testaceous appendages.

British Islands. *Mus. Cuming.*

138. BULLA SCUTULUM (pl. cxxv. f. 164). *Philine scutulum*, Lovén, Ind. Moll. Scand. p. 9.

*B. testâ* quadrato-ovali, anticè subtruncatâ, albâ, subpellucidâ, fasciis binis, incrassatis, striis excavato-punctatis, alternis sæpè tenuioribus, sculptâ; margine integro; apice minuto, rimato, vix umbilicato, rotundato; labro posticè parùm producto, dein leviter impresso, subrecto; margine columellari sinuato-arcuato; aperturâ patentissimâ.

Shell quadrately oval, anteriorly subtruncated, white, subpellucid, engraved with two thickened bands, with excavately punctate striæ, the alternate often the finest; margin entire; apex minute, rimate, scarcely umbilicated, rounded; outer lip posteriorly a little produced, then slightly impressed and rather straight; columellar margin sinuately arched; aperture very wide.

Greenland. *Mus. Cuming.*

139. BULLA COREANICA (pl. cxxv. f. 166), *Adams.*

*B. testâ* subquadrato-ovali; margine externo subrecto, angulo ejus supero truncato; spirâ elevatiusculâ.

Shell subquadrately oval; outer margin rather straight, its upper angle truncated; spire rather elevated.

Korean Archipelago; mud flats. *A. Adams.*

#### SUB-GENUS CHELIDONURA.

140. BULLA HIRUNDININA (pl. cxxv. f. 167, 168), *Quoy*, Voy. de l'Astr. pl. xxvi. f. 20-25.

*B. testâ* cyanæâ, vertice capitis dorsique, medio filamentorum



posteriorum, et margine pallii lineâ cyaneo-viridi ornatis; testâ minimâ, fragili, totâ apertâ, albâ, margine dextro plano, alato, posticè acuto; long. 1 poll.

Mauritius.

*Note*.—Since writing the above Monograph, I have examined the figures and descriptions of two remarkable genera described by M. Krohn, in the *Ann. des Sci. Nat.*, which appear to me links connecting the *Bullidæ* with the *Aplysiadæ*, and which may be thus characterized:—

LOBIGER, Krohn (Tab. cxix. Fig. 18).

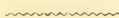
Head with two auriform tentacles; eyes sessile on each side of the head. Foot with the natatory appendages in the form of dilated rounded lobes, two on each side. Body produced posteriorly into a long pointed tail covered with papillæ.

Shell covered with an epidermis, thin, transparent; spire rudimentary, in the form of a protuberance directed towards the left. *L. Philippi*, *Ann. des Sciences Nat.* 3me Série, pl. xi. f. 1, 2.

LOPHOCERCUS, Krohn (Tab. cxix. Fig. 19).

Head with two auriform tentacles; eyes sessile on the sides of the head. Foot with the natatory appendages undivided, reflexed, and partly covering the shell in front, and united posteriorly. Body covered with papillæ, and produced behind into a long pointed tail.

Shell involute, thin, ovate, covered with an epidermis; the outer lip separated from the last whorl, its hind angle inflexed, produced, and rounded. *L. Sieboldii*, Krohn, *Ann. des Sciences Nat.* 3me Série, Zoologie, tom. vii. pl. ii. fig. 5-8. *A. A.*



## SPECIES UNIDENTIFIED.

- B. (Utriculus) globosus, *Lovén*, *Ind. Moll. Scandinaviæ*, p. 11.
- B. (Scaphander) librarius, *Lovén*, *Ind. Moll. Scandinaviæ*, p. 10.
- B. (Cylichna) nitidula, *Lovén*, *Ind. Moll. Scandinaviæ*, p. 10.
- B. (Cylichna) pulvisulcus, *Ehrenberg*, *Symb. Phys.*
- B. (Cylichna) Bacillus, *Ehrenberg*, *Symb. Phys.*
- B. (Cylichna) diaphana, *Ar. et Magg.*, *Catalog. rag.* p. 40. *Phil.*, *Enum. Moll. Sicil.* vol. ii. p. 215.
- B. (Cylichna) mica, *Ehrenberg*, *Symb. Phys.*
- B. (Atys) albicita, *Dufo*, *Ann. Sc. Nat.* t. 14. p. 203.



## BULLA.

## LIST OF FIGURES IN PLATES CXIX. TO CXXV.

(The Figure after each name is the number of the Species.)

## PLATE CXIX.

## ANIMALS OF SUB-GENERA.

Fig.

1. *Aplustrum* (*Shells*, sp. 4-6, f. 4-8).
2. *Hydatina* (*Shells*, sp. 7-10, f. 9-18).
3. *Tornatina* (*Shells*, sp. 11-26, f. 24-39).
4. *Akera* (*Shells*, sp. 32-37, f. 40-46).
5. *Scaphander*.
6. *Bulla*.
7. *Haminea*.
8. *Atys*.
9. *Linteria*.
10. *Cryptophthalmus*.
11. *Phanerophthalmus*.
12. *Sormetus*.
13. *Philine*.
16. *Chelidonura*.
- 14, 15, 17. omitted, to make room for the following, subsequently met with.
18. *Lobiger Philippii*.
19. *Lophocercus Sieboldii*.

## PLATE CXX.

SHELLS OF SUB-GENUS *Bullina*.

1. *B. scabra*, 1.
2. — *lineata*, 2.
3. — *Bruguieri*, 3.

SUB-GENUS *Aplustrum*.

Fig.

- 4-6. *B. Thalassiarchi*, 4.
7. — *Gouldii*, 5.
8. — *debilis*, 6.

SUB-GENUS *Hydatina*.

- 9-11. *B. physis*, 7.
- 12-14. — *vexillum*, 8.
- 15, 16. — *nitidula*, 9.
- 17, 18. — *albocineta*, 10.

SUB-GENUS *Utriculus*.

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20. — *obtusa*, 28.
21. — *pellucida*, 29.
22. — *Cecillii*, 30.
23. — *Borneensis*, 31.

## PLATE CXXI.

SUB-GENUS *Tornatina*.

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25. — *canaliculata*, 12.
26. — *mammillata*, 13.
27. — *truncata*, 14.
28. — *turrita*, 15.
29. — *obstricta*, 16.
30. — *pusilla*, 17.
31. — *coarctata*, 18.
32. — *planospira*, 19.
33. — *biplex*, 20.
34. — *olivula*, 21.



Fig.

35. *B. cinctella*, 22.  
 36. — *gracilis*, 23.  
 37. — *fusiformis*, 24.  
 38. — *simplex*, 25.  
 39. — *polita*, 26.

SUB-GENUS *Akera*.

40. *B. soluta*, 32.  
 41. — *bullata*, 33.  
 43. — *subangulata*, 34.  
 44. — *bicincta*, 35.  
 45. — *tenuis*, 36.  
 46. — *Hanleyi*, 37.

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\* Printed in the text "*punctata*," by error.



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\* Printed in the text "*punctata*," by error.



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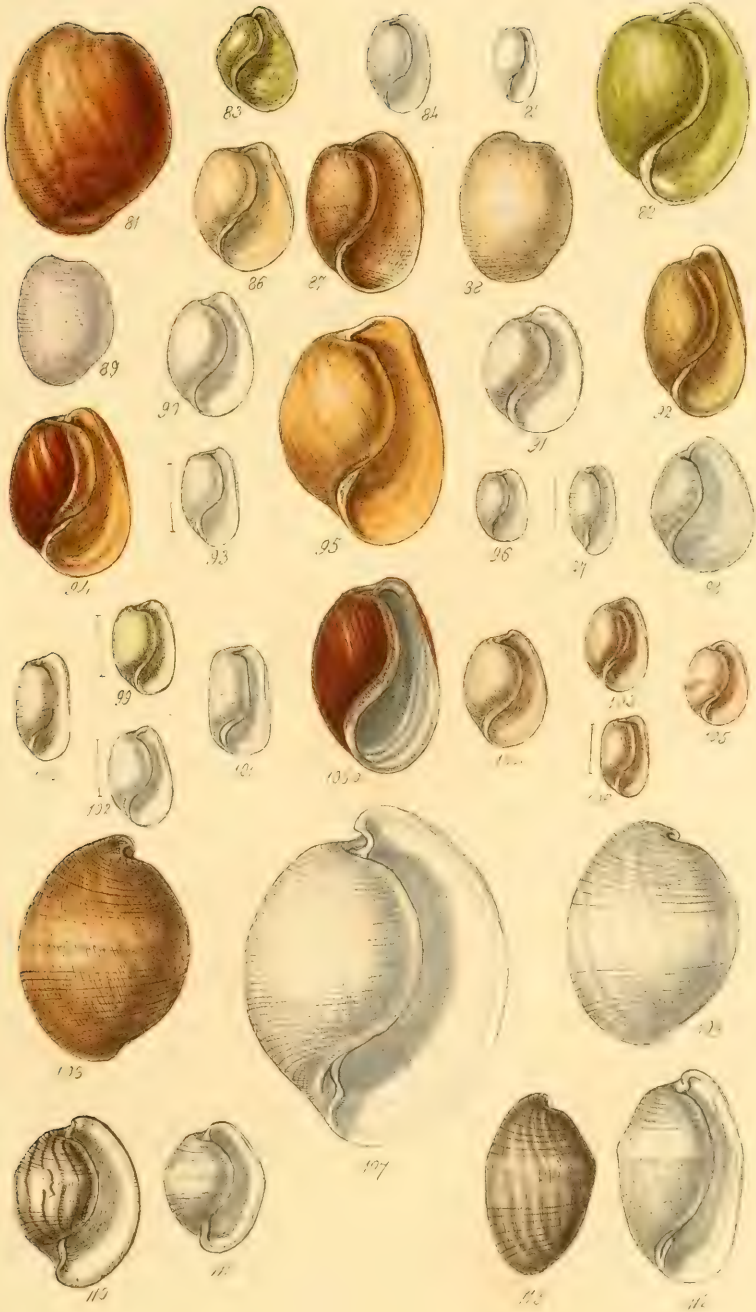


























## MONOGRAPH OF THE GENUS

### M E R O E.

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*Fam. Veneridæ.*

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*Char. Gen.* Testa æquivalva, inæquilatera, subovali-cuneiformis, lævis, solida, epidermide tenui induta, posticè subangulata, anticè rotundata; margine ventrali internè denticulato; ligamento in aream excavatam inserto; lunulâ anticâ distinctâ, elongatâ, impressâ; cardine dentibus tribus cardinalibus et uno elongato laterali antico in utrâque valvâ; impressionibus muscularibus duabus lateralibus; impressione pallii sinu rotundato.

The deep excavation of the hinder part of the dorsal edge, in which the ligament is placed, and the obtuse wedge-like form, seems to separate this genus quite naturally from *Cytheræa*.

1. MEROE PICTA (pl. cxxvi. f. 1, 2), *Schum.* Venus Meroe, *Linnaeus.* Donax Meroe, *Lamarck.*

M. testâ omnino planulatim costatâ, anticè elongatâ, posticè angulo subacuto; colore intùs violaceo, extùs purpureo, vel lineis acutangularibus purpureis ornato.

Flatly ribbed all over, the hinder side the shorter; angle of the outline rather acute; the ventral edge not particularly bulged; variable in colour, generally with broad purple angular lines on a pale ground.

Philippines. *H. Cuming.*

2. MEROE EFFOSSA (pl. cxxvi. f. 11, 12). *Hanley*, Pro. Zool. Soc. 1832; Recent Shells, p. 199; Wood's Supplement, pl. 15. f. 18.

M. testâ omnino costis elevatis rotundatis cinctâ, anticè breviusculâ, rotundatim angustatâ, posticè angulo obtuso; colore pallido, lineis fuscis angulatim scripto, intùs albido, versus apicem roseo tincto.

In this species the ribs are rounded and elevated, the anterior



side is rather the shorter, the angle of the posterior side is obtuse. Colour pale brownish, with brown angular markings: it also occurs white.

Pasacao Bay, Philippines. *Cuming*.

3. *MEROE SEMINUDA* (pl. cxxvi. f. 15), *Philippi*, Abbild. *Cytl.* t. ix. f. 8. An var. *C. Birmanica*, *Anton*?

*M.* testâ ad umbones et posticè costis subplanulatis cinctâ, subtumidâ, subæquilaterâ, posticè subrotundatâ; margine ventrali rotundo; colore pallidissimè fulvo, maculis angularibus fuscis picto.

Ribbed only at the umbones, and a little beyond the posterior half of the shell, which is coloured with broad angular brown markings on a very pale ground. More equilateral than the preceding, with the posterior angle and ventral edge rounded.

Moluccas. *Cuming*.

4. *MEROE SCRIPTA* (pl. cxxvi. f. 3, 4, 5, 6, 7, 8). *Venus scripta*, *Linnaeus*. *Donax scripta*, *Lamarck*.

*M.* testâ lævigatâ, anticè subelongatâ, posticè angulo subacuto, intùs violacèâ, extùs lineis acutangularibus scriptâ, variat purpureâ, immaculatâ; vel albâ, vel aurantiâ, fuscâ, scriptâ.

In shape and variations of colour like *M. picta*, from which it differs in having no ribs.

Indian Ocean. *Lamarck*.

5. *MEROE EXCAVATA* (pl. cxxvi. f. 13, 14), *Hanley*, Pro. Zool. Soc. 1842; Recent Shells, p. 109. pl. 15. f. 19.

*M.* testâ lævigatâ, subrotundatâ, latâ, anticè brevi, angustâ, posticè expansâ; margine dorsali elevato, angulo obtuso; margine ventrali rotundato; colore violaceo vel pallidè fulvo, purpureo interruptim radiato.

Broader and rounder than *M. scripta*, with the anterior small in proportion to the posterior side, which is broad, with the dorsal margin elevated, the angle obtuse, and the ventral margin much bulged.

Japan.

6. *MEROE SUBQUADRATA* (pl. cxxvi. f. 9), *Sowerby, jun.*

*M.* testâ lævigatâ, posticè subquadratâ, anticè brevi, angustâ, margine ventrali subrotundatâ; colore pallidè fulvo, fusco radiatim maculato.



The anterior side is short and narrow. The shell differs from *M. excavata*, Hanley, in the squareness of the posterior side, and the length and elevation of the posterior dorsal edge. The ventral edge is not so much bulged. *Mus. Cuming and Sowerby.*

7. *MEROE SOLANDRI* (pl. cxxvi. f. 10), *Gray*, Ann. Phil. *Wood*, Suppl. pl. 2. f. 11.

*M. testâ lævigatâ, tumidâ, subæquilaterali, subovali; margine ventrali rotundato; colore albo, maculis fasciisque fuscis angulatim scripto.*

Shell smooth, tumid, and more oval than any of the rest; and nearly equilateral.

China.

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#### MONOGRAPH OF THE GENUS

### CYTHERÆA.

*Fam. Veneridæ.*

*Char. Gen.* Testa æquivalvis, inæquilatera, plerumque ovalis; impressionibus muscularibus duabus, subreniformibus; pallii impressione plerumque posticè plus minus sinuatâ; ligamento externo; lunulâ plerumque impressâ; cardine dentibus duobus



aut tribus cardinalibus, uno sublaterali, plerumque approximo; epidermide tenui.

The *Cytherææ* are distinguished from the *Veneres* by the character of the hinge, there being a short lateral tooth generally close to, but distinct from, the cardinal teeth. In the section of *Veneres* named *Dosina* by some authors, there is a rudimentary indication of this character, enough to show the uncertainty of our artificial classifications, but not enough to invalidate the present genus as a useful division. After removing the genus *Meroe* on the one hand, and *Circe* and *Artemis* on the other, we can see no practical utility in other generic divisions which have been proposed for the shells now to be described.

1. CYTHERÆA CRASSATELLOIDES (pl. cxxvii. f. 1, 2, 3), Trigona Crassatelloides, *Conrad*, Ann. Nat. Sc. Phil. vol. vii. p. 253. t. 19. f. 17. Test. junior, Trigona stultorum? *Gray* in *Analyst*, 1838. *Hanley*, Sp. Shells, p. 105. *Wood*, Sup. t. 2. f. 2.

Cyth. testâ subtrigonâ, crassâ, subæquilatêrâ, obliquâ; cardine et ligamento magnis; margine laterali postico, obliquo, subelongato, margine ventrali prope angulum posticum subarcuato; colore pallido, radiis fuscis violascentibus, vel griseo-fuscescente; epidermide pallidè fulvâ, vitreâ.

Shell very thick, with large hinge and ligament; obliquely shaped, although nearly equilateral; umbones prominent, ventral outline rather swollen near the posterior angle, which is not very decided or sudden; colour pale, with rays of brown or purplish; epidermis pale greenish-yellow, glassy, and smooth; the teeth and muscular impressions marked with purplish-brown. The younger specimens are probably identical with the *C. stultorum*, figured in *Wood's Index*.

California. *Mus. Cuming, Gubba, &c.*

2. CYTHERÆA DUBIA (pl. cxxvii. f. 4), *Sowerby, jun.*

Cyth. testâ *C. Crassatelloidi* simillimâ, sed magis angulari et rectâ; margine ventrale prope angulum posticum rectiusculo.

Our figure of this shell is taken from a drawing made long ago; but we have no idea in what collection the shell is to be found, or from what locality it comes. Mr. Cuming has a shell something like it, but not absolutely identical with it, from China. The species appears much less oblique than *C. Crassatelloides*, and more angular posteriorly.



3. *CYTHERÆA VIRGINEA* (pl. cxxvii. f. 5), *Adams*, *Voy. Samarang*, *Moll.* p. 78.

Cyth. testâ oblongâ, subtriangulari, subæquivalvi, crassâ, cinerascens-albâ, epidermide vitreâ indutâ, radiatim obscurissimè fasciatâ; latere postico subcoarctato, subviolaceo, lineâ impresso.

Some of the young rayless specimens of *C. Crassatelloides* present a general resemblance to this shell, which, however, may be distinguished by the contraction of the posterior side.

Moluccas.

4. *CYTHERÆA DAMAOIDES* (pl. cxxvii. f. 7, 8, 9), *Gray*; *Wood*, *Suppl. Venus*, f. 17. *C. ponderosa*, *Koch*, *Abbild. und Besch. Conch.* pl. 1. f. 1.

Cyth. testâ subtrigonâ, crassâ, lævigatâ, altâ, subcompressâ; umbonibus, cardine et ligamento magnis; margine postico brevisculo, subplanulato, subangulato; lunulâ elongatâ, subdistinctâ; margine ventrali anticè rotundato, posticè prope angulum paululum contracto; colore pallido, fasciis radiantibus rubescentibus, vel fuscis, vel nullis, ad angulum posticum purpureo unifasciato, intus albo.

Shell very thick when fully grown, pale, smooth, with radiating bands of purple or brown, with one darker and broader on the posterior angle; umbones elevated, rather tumid, slightly leaning towards the hinder side, which is flattened and rather short; ventral edge swollen anteriorly, and slightly contracted towards the posterior angle. The hinge is very broad and thick, the ligament large, lateral tooth distant, and interior of the shell pearly white.

Red Sea.

5. *CYTHERÆA VENTRICOSA* (pl. cxxvii. f. 6), *MS.*, *Brit. Mus.*

Cyth. testâ subtrigonâ, inflatâ, altissimâ, lævi; latere postico latè angulato et complanato, latere antico subincurvato; margine ventrali anticè subrotundato; lunulâ cordiformi, margine impressâ; colore pallido, fusco fasciatim scripto.

Shell very ventricose, as deep as long, smooth, with pale angular markings arranged in irregular concentric bands; the umbones leaning towards the anterior side; hinder side angulated, with a broad flattened space; lunule heart-shaped, defined at the edge. Mr. Cuming's specimen, which we have figured, is more remarkable in form than those of the British Museum.

China.



6. *CYTHERÆA TRIPLA* (pl. cxxviii. f. 18, 19, 20, 21, 22), *Linna.*, Mantis, p. 545; *Lamarck*, no. 12; *Chemn.* f. 330, 331.

Cyth. testâ trigonâ, crassâ, altâ, pallidè fulvâ vel aurantiacâ, nonnunquam fasciis violaceis radiatâ, intûs plerumque purpureâ; margine ventrali subrectâ, lateribus excavatis; areâ posticâ angulatâ, magnâ, cordiformi; areâ anticâ magnâ, subangulatâ; lunulâ distinctâ.

Shell trigonal, thick, deeper than long, of a pale buff or orange-colour, sometimes rayed with purple bands, sometimes deep purple within. There is a peculiar swell in the disc of the shell near the umbones, then the angle is contracted, and again spreads broadly at the ventral margin. Both sides present large cordiform areas, and the lunule is defined by an impressed line. The spreading of the ventral margin does not take place till the shell is full grown.

Senegal.

7. *CYTHERÆA CORBICULA* (pl. cxxviii. f. 37, 38, 39), *Lamarck*, Anim. s. vert., sp. 11.

Cyth. testâ ventricosâ, altâ, subtrigonâ; latere antico subrotundato, latere postico subcoarctato; umbonibus magnis, subcentralibus; colore pallidè luteo, fasciis castaneis radiato, vel omnino castaneo, intûs albo.

Shell very ventricose, trigonal, with large umbones, and nearly as high as broad; the hinder side almost narrowed to a point, the front side round. The specimens (f. 39) from California, in Mr. Sowerby's collection, are pale, with dull-brown rays and dull-brown epidermis. The specimen (f. 38) in Mr. Gubba's collection has the rays much brighter. Mr. Cuming has one of a chestnut-colour all over.

Island of Margarita, West Indies.

8. *CYTHERÆA HINDSII* (pl. cxxviii. f. 27), *Hanley*, Sp. of Shells. *Wood*, Suppl. pl. 15. f. 35.

Cyth. testâ *C. radiatæ* simili, sed altiore; latere postico breviusculo; umbonibus inflatis; lunulâ et areâ posticâ latis, indistinctis, fasciâ castaneâ circumscriptis; colore pallidè fulvo, fusco fasciato et angulatim lineato; epidermide velutinâ.

Shell shorter and more inflated than either *C. corbicula* or *C. radiata*, the hinder side much shorter than in the former. Instead of a smooth greenish-brown epidermis, it has a velvety coating, as in *C. argentina*.

The specimen figured is from Guayaquil Bay. *Mus. Cuming*.



9. CYTHERÆA RADIATA (pl. cxxviii. f. 28, 29, 30, 31), *G. B. Sowerby*, Zool. Proc. 1835. p. 23.

Cyth. testâ subtrigonâ, subæquilaterâ, gibbosâ, pallescente-brunneo radiatâ et undulatim pictâ, lævi, epidermide corneâ crassiusculâ plus minus indutâ; lateribus antico posticoque ventrem versus rotundatis; margine ventrali rectiusculo, intûs lævi.

The ventral edge is nearly straight, and the sides somewhat squared; the broad rays of colour have undulating markings between them. In these respects, as well as in being rather less ventricose, *C. radiata* differs from *C. corbicula*.

Salango and Xipixapi, West Columbia; sandy mud, five fathoms. *Cuming*.

10. CYTHERÆA GRACILIOR (pl. cxxviii. f. 32), *Sowerby, jun.*

Cyth. testâ albâ, *C. radiatæ* simili, sed magis elongatâ, latere postico subattenuato.

A white shell, much more elongated than *C. radiata*, with the posterior side obliquely drawn out; an impressed line on the anterior surface defines the lunule.

Locality unknown. Specimen kindly furnished by Mr. Hanley.

11. CYTHERÆA MACTROIDES (pl. cxxviii. f. 36), *Dillwyn*, p. 173. *Chemn.* f. 330, 331. *Lamarck*, no. 27?

Cyth. testâ ovali-subtrigonâ, fasciis castaneis radiatâ, solidâ, lævi; margine ventrali subrotundâ; lateribus breviusculis, postico rotundatim subangulato; areâ cardinali posticâ cordiformi, castaneâ; lunulâ indistinctâ, prope umbones rubrâ, tùm albo unifasciatâ.

Shell more evenly oval than either *C. corbicula* or *C. radiata*, with the sides shorter, and the whole shell longer in proportion to its height; the chestnut rays are broader than the intermediate whites; the hinge area is reddish-brown near the umbones, with a white broad band enclosing the brown.

Probably from the West Indies.

12. CYTHERÆA INTERMEDIA (pl. cxxviii. f. 35), *Sowerby, jun.*

Cyth. testâ ovali-subtrigonâ, albâ, subæquilaterâ, lævi, compressâ; margine ventrali rectiusculo; latere postico subangulato.

A white, trigonal, rather compressed shell, neither so high nor so tumid as *C. radiata*, and having the ventral margin more straight, and the hinder side more squared, than in *C. depressa*.

California. *Cuming*.



13. CYTHERÆA COMPRESSA (pl. cxxviii. f. 33, 34), *Sowerby, jun.*

Cyth. testâ ovali-subtrigonâ, albâ, vel fasciis rubescentibus variè radiatâ, crassâ, lævi, compressâ; margine ventrali subrotundato, prope angulum posticum subcontracto.

Shell shaped like *C. Mactroides*, but much more compressed. It is nearly equilateral, and the outline of the ventral margin is slightly contracted near the posterior angle.

The variety with waved lines between the rays is from the Cape of Good Hope; this, and the specimen (fig. 33) of a general brown tint, belong to Mr. Hanley.

14. CYTHERÆA NITIDULA (pl. cxxviii. f. 25), *Lamarck, Anim. s. vert. no. 21.*

Cyth. "testâ ovato-ellipticâ, lævigatâ, fulvo-rubente; cingulis subduabus spadiceo-maculatis; natibus albidis."—*Lamarck.*

Shell resembling the last, but deeper, larger, and more oval. It is coloured by clouded reddish-brown rays, which at the sides branch out into oblique lines.

Locality uncertain.

15. CYTHERÆA LINEATA (pl. cxxviii. f. 26), *Sowerby, jun.*

Cyth. testâ trigonâ, subventricosâ, æquilaterâ, tenui, lævigatâ, subcinereâ, posticè angulatim trilineatâ, anticè unipunctatâ, intùs ad latera purpureâ; margine ventrali subrecto, lateribus subrotundatis; umbonibus parvulis, lateribus cæruleis; lunulâ subangustatâ; lineâ impressâ circumscriptâ.

Shell trigonal, longer than high, equilateral, rather thin, smooth, of a pale ashy-buff colour, with three sharply angulated lines at the posterior side, and a spot at the anterior side; both sides strongly marked with purple inside. The umbones are small, with little dashes of blue at the sides; the lunule is defined. This shell is related to the three or four preceding, but by the above characters easily distinguished. The specimen figured, from the collection of Mr. Hanley, is, as far as we know, unique.

16. CYTHERÆA HANLEYANA (pl. cxxviii. f. 23, 24), *Sowerby, jun.*

Cyth. testâ subovali-trigonâ, subobliquâ, inæquilaterâ, tenui, lævi, pallidissimè griseâ, fasciis interruptis radiatis fuscis et ad latus posticum maculâ unâ distinctâ pictâ; latere postico subelongato; umbonibus parvulis, cæruleis; lunulâ indistinctâ.



Shell of a subovate trigonal form, thin, smooth, the hinder side longer than the front; the umbones bluish and small. Colour pale ashy-buff, with one strong spot of brown near the hinder angle, and, in one specimen, a number of interrupted brown rays.

Of the two specimens in the collection of Mr. Hanley, the locality is unknown.

17. *CYTHERÆA TRIGONELLA* (pl. cxxviii. f. 16), *Lamarck*, Anim. s. vert. no. 28. *Trigona angulifera*, *Gray*, in *Analyst*, 1838.

Cyth. "testâ trigonâ, subæquilaterâ, depressâ, pallidè fulvâ; radiis albis, raris; ano lanceolato."—*Lamarck*.

The specimen figured is very much like that in Delessert (t. 8. f. 3); and this is the only means of identification, as the above description would apply to several. It is oblong, trigonal, almost transparent, nearly equilateral; at the hinder side it is rather squared and has a dark brown band. There is a red softened spot on either side of the umbones, which are small, and the body of the shell is variously coloured with pale rays and several zig-zag brown markings.

West Indies.

18. *CYTHERÆA INCERTA* (pl. cxxviii. f. 17), *Sowerby, jun.*

Cyth. testâ albâ, lævi, ventricosâ, ovali-subtrigonâ; umbonibus parvulis, utrinque rubro-tinctis; lineis pallidis, fulvis, angulatis, sparsis.

A small, white, ovate-subtrigonal shell, resembling *C. trigonella*, but more obese and thick, and not so decidedly oval.

St. John's; *M. Hartweg*. We have only seen the specimen in Mr. Cuming's collection.

19. *CYTHERÆA BICOLOR* (pl. cxxvii. f. 10, 11), *Gray*, in *Analyst*. *Hanley*, Sp. of Shells. *Wood*, Suppl. pl. 15. f. 16.

Cyth. testâ trigonâ, angulatâ, albâ, post angulum castaneâ, altâ, compressâ; lateribus et margine ventrali rectis; latere postico subelongato, acutiusculo; lunulâ elongatâ, distinctâ; umbonibus acutis.

A white shell, with a dark brown mark behind the angle, rather compressed, and nearly approaching an equilateral triangle in form, the hinder side being a little longer and more acute.

The brown specimen is from the Red Sea, in Mr. Cuming's collection.

Senegal.



20. CYTHERÆA PLANULATA (pl. cxxvii. f. 13), *Broderip*, Zool. Journ. vol. v. p. 48. Donax Lessoni? *Deshayes*, Enc. Méth. vers. p. 99. *C. planulata*, var. *suffusa*, Sowerby, Zool. Proc. 1835. p. 45.

Cyth. testâ trigonâ, depressiusculâ, subæquilaterali; angulis inferioribus rotundatis; pallidè flavicante, radiis numerosis fusciscentibus; intùs albidâ, fusco-violaceo variâ; dente postico remoto.

Shell triangular, depressed, not quite equilateral (the hinder side being the shorter), white, with a thin epidermis, radiated with brown stripes of various width, purple at the apex and also within at the sides and about the hinge; near the hinder angle there is a sinuous opening between the valves.

The variety described in the Zoological Proceedings presents a slight difference in form, and has the rays more spread.

Panama. *Cuming*.

21. CYTHERÆA UNDULATA (pl. cxxvii. f. 12), *Sowerby, jun.* *C. planulata*, *Sowerby*, Beechy Voy. Zool. t. 43. f. 6.

Cyth. testâ *C. planulata* simili, sed altiore, solidiore; radiis interruptis, transversè undulatis; latere postico clauso; lunulâ lanceolatâ, distinctâ.

Shell less elongated, more equally triangular, and more solid than *C. planulata*, with the hinder side closed, or nearly so, and painted with a defined broad ray of purplish-brown; the rays on the surface are composed of beautifully undulated cross bands; the lunule is long and distinct; the purple patches within well defined and brilliant. Umbones white.

Salango, West Columbia; sandy mud, nine fathoms. *Cuming*.

22. CYTHERÆA POLITA (pl. cxxvii. f. 14), *Sowerby, jun.*

Cyth. testâ trigonâ, depressâ, politâ, posticè angulatâ, pallidè fulvâ, cinerascante, distanter radiatim fulvo fasciatâ, ad umbones angulatim lineatâ, intùs albâ; cardine, lateribus et margine purpureo tinctis; latere postico ad basin subacuto, latere antico rotundato; lunulâ parvâ, distinctâ, subinflatâ.

A more smooth and solid shell than *C. planulata* or *C. undulata*; not squared, but angulated at the posterior termination of the lower margin; colour pale brown, with here and there a tint of blue, and three or four brown rays; umbones small, with very delicate fluctuating lines; inner surface white, tinted at the hinge, the posterior side, and about the pallial impression with clouded purple.

Mr. Hanley has kindly furnished the only specimen we have seen of this shell.



23. CYTHERÆA DOLABELLA (pl. cxxvii. f. 15), *Sowerby, jun.*

Cyth. testâ trigonâ, solidâ, altâ, pallidâ, lævigatâ, epidermide fuscâ indutâ; latere postico angulato, subexcavato, ad basin subrostrato; latere antico rotundato; lunulâ parvâ, distinctâ; margine ventrali subarcuato; umbonibus acutis.

A pale trigonal shell, with a dark brown epidermis; the ventral margin and lower part of the anterior side rounded, the posterior angle prominent and acute.

Red Sea. *Mus. Cuming.*

24. CYTHERÆA MERETRIX (pl. cxxix. f. 48, 49, 50), *Linn.*  
Syst. Nat. *Lamarck, Anim. s. vert. Cyth. no. 6.*

Cyth. testâ ponderosâ, ovali-subtrigonâ, lævi, albâ, posticè cæruleâ, prope umbones vel omnino angulatim fusco-maculato; margine ventrali subinflato; latere postico vix angulato, subelongato, ad terminum subacuto; lunulâ magnâ, indistinctâ; ligamento magno.

Lamarck has separated this and the following member of the same group upon the mere ground of variations in colour. I am inclined to think that such distinctions are untenable, and am almost persuaded that this species and the eight following might be united under one name, seeing that they pass imperceptibly into each other, and that in a young state it is almost impossible to distinguish them. As, however, such extensive recombinations would hardly be consistent with the usual course of nomenclature, I have endeavoured, from a number of specimens, to arrange a series of variations in form, and have applied to them the same names which Lamarck attached to variations in colour. This species has an oval form, rather lengthened and angular at the posterior side, while the ventral edge is rounded. It is generally white, with a broad purplish posterior area, and a few angular markings near the umbones, or, as in fig. 5, nearly all over the shell. The latter is in Mr. Cuming's collection, and is from China.

25. CYTHERÆA PETECHIALIS (pl. cxxix. f. 51, 52), *Lamarck,*  
*Anim. s. vert. Cyth. no. 2.* Var. *C. graphica, Lamarck, no. 7.*

Cyth. testâ *C. meretrici* simillimâ, sed multum altiore; margine rotundissimo; latere postico rotundatim angulato; colore subgriseo, fusco-rufescente angulatim lineato.

Shell rounder and higher than *C. meretrix*; the ventral margin very much rounded; the lateral angle rather more distinct; coloured in the same way as *C. meretrix*, but without the purple posterior area.



Japan, *Dr. Sibbald. Mus. Cuming.* The small variety in Mr. Sowerby's collection (f. 52) is perhaps the *C. graphica* of Lamarck.

26. CYTHERÆA LUSORIA (pl. cxxviii. f. 40, 41, 42), *Lamarck*, *Cyth.* no. 1. Var. *C. fusca*, *Koch*, *Ph. Abbild.* t. 3. f. 1.

*Cyth. testâ C. meretrici* simili, sed latere postico magis angulato; margine ventrali subrecto.

The ventral edge is straighter, and the lateral hinder angle more distinct. Fig. 40 represents the typical variety, having chestnut-coloured concentric bands, divided into two rays near the umbones; it is in Mr. Cuming's collection, from the Philippines. Fig. 41 is in Mr. Sowerby's collection, and coloured exactly as the typical variety of *C. meretrix*; and fig. 42 is entirely chestnut-coloured: it is from the collection of Mr. Gubba, and well agrees with *C. fusca*, Koch. All have broad purplish bands covering the posterior angle. China.

27. CYTHERÆA MORPHINA (pl. cxxix. f. 59, 60), *Lamarck*, *Anim. s. vert. Cyth.* no. 8. var.

*Cyth. testâ C. meretrici* simili, sed lateribus suffusis, lunulâ magis inflatâ, marginibus crassioribus; colore pallidè fulvo, griseo radiatim fasciato.

Shell thicker, more spreading at the sides, with a rather straighter and thicker margin and more tumid lunule than *C. meretrix*; no posterior purple band; the colour pale reddish-brown, with greyish rays.

Fig. 59, China; *Mus. Cuming.* Fig. 60, *Mus. Hanley.*

28. CYTHERÆA FORMOSA (pl. cxxix. f. 47), *Sowerby, jun.*

*Cyth. testâ C. meretrici* simili, sed magis obliquâ et elongatâ; latere postico elongatiusculo; colore pallido, fasciis griseis suffuso, prope umbones castaneo biradiato.

This shell is thinner, more oblique, and more elongated, than *C. meretrix*, which it otherwise greatly resembles. The hinder part is coloured with grey, which is spread in concentric bands towards the fore part; there are also two broad chestnut-coloured rays, commencing at the umbones, and interrupted near the centre.

Locality unknown. *Mus. Cuming.*

29. CYTHERÆA ZONARIA (pl. cxxix. f. 53, 54), *Lamarck*, *Anim. s. vert. sp.* 5. Var. *C. exilis*, *Chemn.* f. 362, 363?

*Cyth. testâ lineis angulatis fasciatim pictâ, C. meretrici* simili,



sed posticè validè angulatâ; margine ventrali prope angulum paululùm contracto.

Shell almost trigonal; the posterior side decidedly angular, and the ventral margin very slightly contracted near the posterior angle. The typical variety is marked with fluctuating angular lines arranged in bands.

Our specimens are both from China, in Mr. Cuming's collection.

30. CYTHERÆA IMPUDICA (pl. cxxix. f. 55, 56, 57, 58). Venus, *Chemn.* f. 347, 348, 350; *Lamarck*, Cyth. no. 3. Var. *C. castanea*, *Lamarck*, no. 4.

Cyth. testâ *C. meretrici* simili, sed magis ventricosâ, solidâ, et rotundatâ.

Shell much more ventricose, thick, and rounded, than *C. meretrici*. One variety is of a pale pink-buff (f. 55); another, the same radiated and suffused with grey; a third has two brown rays; and a fourth, *C. castanea*, *Lamarck*, is chestnut all over.

Fig. 58, Singapore; *Mus. Cuming*. Fig. 56, 57, Philippines; *Cuming*. Fig. 55, Mr. Sowerby's collection.

31. CYTHERÆA CASTA (pl. cxxix. f. 43, 44, 46), *Gmelin*. Var. *C. brunnea*, *Chemn.*?

Cyth. testâ *C. meretrici* simili, sed solidiore; *C. impudicæ* simili, sed rectiusculâ, subæquilaterâ; latere postico subquadrato; testâ pallidâ, nonnunquam fasciâ aurantiacâ unicâ prope marginem cinctâ; epidermide rufescente.

Shell more straight and square, less oblique and rounded, than *C. impudica*; colour pale, with a reddish epidermis. There is one variety from Ceylon, which always has an orange band near the ventral margin, leaving the remaining space white: Mr. Sowerby possesses specimens of this.

32. CYTHERÆA OVUM (pl. cxxix. f. 45), *Hanley*, Species of Shells.

Cyth. testâ *C. castæ* simili, sed magis elongatâ et ovatâ.

Much more elongated and oval than *C. casta*.

33. CYTHERÆA LYRATA (pl. cxxix. f. 61), *Sowerby, jun.*

Cyth. testâ ovali-subtrigonâ, crassâ, ventricosâ, fulvâ grisescente concentricè subundatim sulcatâ; latere postico subangulato, fusco; lunulâ vix distinctâ.

This beautiful shell takes the form as the group just concluded,



but is characterized by waved, deep-cut, concentric ridges. The hinder side is marked with deep brown.

Jinigaran, Island of Negroes, Philippines. *Cuming*.

34. *CYTHERÆA ARGENTINA* (pl. cxxix. f. 62), *Sowerby, sen.*, Pro. Zool. Soc. 1835. p. 46.

*Cyth. testâ* subtrigonâ, alba, subæquilaterali; latere antico paulò brevior, postico subacuminato; margine dorsali postico rectiusculo, declivi, ventrali rotundato; epidermide tenui, corneâ, extûs velutinâ, albâ, quasi argentatâ, indutâ.

Shell subtrigonal, white, subequilateral; the anterior side a little the shorter, the hinder side rather acuminate; the ventral margin rounded; epidermis thin, pale-green, with a velvety, silver-like coating over it.

Gulf of Nocoia, Central America; sand-banks at low water. *Cuming*.

35. *CYTHERÆA NOBILIS* (pl. cxxx. f. 68), *Reeve*, Pro. Zool. Soc. 1849.

*Cyth. testâ* crassâ, albâ, rotundatâ, concentricè subundatim costatâ, ventricosâ; latere antico brevi, rotundato, latere postico unisulcato; margine postico dorsali et ligamento elongatis; lunulâ distinctâ, excavatâ; umbonibus magnis.

A fine, large, heavy, ribbed, rounded, white shell, with hinder dorsal margin and ligament high and long; lunule excavated, and anterior side short; a depressed ridge at the posterior side.

36. *CYTHERÆA PURPURATA* (pl. cxxx. f. 67), *Lamarck*, Anim. s. vert. *Cyth.* no. 9. *C. lubrica*, *Broderip*, Zool. Proc. 1835.

*Cyth. testâ* nitente, crassâ, rotundatâ, subcompressâ, purpureâ, intûs albâ, sulcis inæqualibus cinctâ, posticè obscurè angulatâ; margine dorsali subexcavatâ; lunulâ impressâ.

Shell thick, shining, rounded, purple, white within, rather compressed, girt with unequal, distant grooves; dorsal margin rather hollow; lunule impressed.

Puerto Portrero, Central America. *Cuming*.

37. *CYTHERÆA UMBONELLA* (pl. cxxx. f. 63, 64, 65, 66), *Lamarck*, Anim. s. vert. *Cyth.* no. 55. Var. *C. nivea*, *Hanley*, Sp. of Shells, p. 97.

*Cyth. testâ* crassâ, ventricosâ, nitente, ovali, inæquilaterâ, pur-



purêa vel niveâ, posticè cœruleâ, ad umbones fusco maculatâ ; latere antico brevi, sulcis regularibus concentricis cincto ; umbonibus sulcatis, prominentibus ; lunulâ cordiformi, subexcavatâ.

Shell oval, thick, ventricose, shining, with the anterior side short and round, and sulcated ; the umbones prominent and sulcated ; the lunule broad, heart-shaped, and hollow.

Fig. 64 (Mr. Cuming's), from Brazil, purple ; fig. 63 (Mr. Cuming's), Red Sea, part purple, very oblique ; fig. 65, 66, *C. nivea*, Hanley, white, with bluish posterior side : all angularly marked with brown at the umbones.

38. CYTHERÆA ERYCINA (pl. cxxx. f. 69). *Venus erycina*, Linn. 1131. *Chemn. Conch.* f. 337.

Cyth. testâ ovali, crassâ, concentricè planulatim sulcatâ, medio fuscâ, ad margines aurantiâ, prope marginem dorsalem fusco et albo maculatâ, omnino fusco et albo interruptim radiatâ ; latere antico brevi ; lunulâ distinctâ, aurantiâ.

Shell oval, thick, brown at the upper part, orange towards the margin, with a band of white on each side of the lunule, and dorsal margin crossed by zigzag markings of brown, radiated with broad interrupted bands of brown and white, concentrically ridged ; the ridges broad and flat.

Philippines. *Mus. Cuming.*

39. CYTHERÆA MULTIRADIATA (pl. cxxx. f. 76), *Sowerby, jun.*

Cyth. testâ *C. erycinæ* simili, sed costis obsoletis.

Like *C. erycina*, but with the ribs, excepting on a small part of the anterior, obsolete ; in the colouring there are also some linear rays with undulating lines between.

Bay of Manilla. *Cuming.*

40. CYTHERÆA COSTATA (pl. cxxx. f. 70, 71), *Chemn.* f. 1975. *Wood*, Suppl. pl. 7. f. 39. *Hanley*, Sp. of Shells, p. 106. Var. *C. Pacifica*, *Dillwyn*, p. 175 ?

Cyth. testâ *C. erycinæ* simili, sed costis rotundatis, elevatis, albâ, lineis fuscis distanter radiatâ, vel fulvâ, fusco-nigrescente radiatim fasciatâ.

Like *C. erycina*, but with the ribs rounded and elevated ; white, with interrupted linear brown rays, or of a dull greyish-brown, with dark broad rays.

Fig. 70, from Swan River ; fig. 71, from Port Essington. *Jukes.*



41. CYTHERÆA ERYCINELLA (pl. cxxxi. f. 85), *Lamarck*, Anim. s. vert. *Cyth.* no. 17.

Cyth. testâ ovali, lævi, fusco distanter radiatim fasciatâ; latere antico brevi, sulcato, latere postico subacuminato, planulato; lunulâ parvâ, distinctâ.

From general appearance supposed by some authors to be the young of *C. erycina*, but it is more pointed at the posterior side, and the grooves only reach from the anterior side to the middle of the shell.

Red Sea.

42. CYTHERÆA SEMISULCATA (pl. cxxxi. f. 82), *Sowerby*, *jun.*

Cyth. testâ *C. erycinellæ* simili, sed magis elongatâ et ovali; albâ, maculis tribus latissimis subcæruleis radiatim albo interruptis medio pictâ.

Besides the form, which is more elongated and more regularly oval, the colour of this shell, consisting of three very broad radiate patches in the centre of a white ground, distinguishes it from *C. erycinella*. One specimen from Australia, in Mr. Cuming's collection, is all we have seen.

43. CYTHERÆA PULCHRA (pl. cxxx. f. 73), *Gray*, Wood's Suppl. t. 2. f. 16. *Hanley*, Sp. of Shells, p. 104.

Cyth. testâ ovali, lævigatâ, pallidè fulvâ, griseo marmoratâ, lineis purpureis radiatâ, anticè sulcatâ, brevi; lunulâ purpureâ, impressâ; areâ dorsali lividâ, angulatim fusco-lineatâ; latere postico ad terminum subacuminato.

Shell oval, smooth, pale fawn-coloured, marbled with brownish-grey, radiated with dark purplish broad lines; lunule impressed, dark purple; dorsal area grey, with fluctuating angular lines across; anterior side short, grooved; posterior side rather lengthened, rather acuminate at the end, and smooth.

Red Sea.

44. CYTHERÆA SINENSIS (pl. cxxxi. f. 79, 80). *Venus* *Chinensis*, *Chemn.* f. 1976.

Cyth. testâ subovali, subdepressâ, dimidiatim sulcatâ, albâ, rufo radiatâ et maculatâ; margine dorsali albo, elevato; lunulâ impressâ, rubrâ; latere postico subacuminato.

Shell more broad and depressed than the preceding members of the same group, with the sides more elevated towards the umbones.

China.



45. CYTHERÆA SPATHULATA (pl. cxxxi. f. 78, 79), *Sowerby, jun.*

Cyth. testâ *C. Sinensi* simili, sed altiore; margine dorsali fusco angulatim maculato; disco fulvo, fusco interruptim radiato; latere fusco, unifasciato.

Shell coloured like *C. erycina*, except that the margin is not orange; it is shaped like *C. Sinensis*, but with the dorsal margin more elevated, and white, marked across with angular spots.

Australia. The specimen figured from Mr. Cuming's collection is the only one we have seen.

46. CYTHERÆA IMPAR (pl. cxxxi. f. 77), *Lamarck*, Anim. s. vert. *Cyth.* no. 16.

Cyth. testâ subovali, crassâ, lævi, altâ, anticè sulcatâ, omnino fasciis fuscis violascentibus interruptis radiatâ, intùs violaceo tinctâ; margine dorsali livido, retuso, fusco maculato, subangulato; latere antico brevissimo, postico obtuso; lunulâ excavatâ, lividâ; umbonibus magnis.

Shell smooth at the back, ribbed in front, large and rather angular at the dorsal margin and umbones, short in front, long and obtuse behind; nearly white between the greyish-brown interrupted rays; dorsal margin livid; lunule concave and livid.

The peculiar characteristic of this shell is the obtuseness of the posterior side, at the termination of the ventral margin.

Australia.

## 47. CYTHERÆA FESTIVA (pl. cxxx. f. 72), — ? (tablet of Paris Museum).

Cyth. testâ subovali, crassâ, lævi, anticè sulcatâ, fulvo-rubescente, lineis et fasciis rubris radiatâ; latere antico brevi, postico ad terminum subobtuso; lunulâ impressâ, rubrâ.

Shell like *C. impar*, but not so high nor so thick at the umbones, nor so obtuse at the posterior termination. The colouring is also different, being composed of bands of light brown and pinkish-white, crossed by radiating lines and bands of rose-red; lunule red and impressed.

Locality unknown. The specimen figured is remarkably beautiful, and belongs to Mr. Hanley.

48. CYTHERÆA PECTORALIS (pl. cxxx. f. 75), *Lamarck*, Anim. s. vert. *Cyth.* no. 18.

Cyth. testâ ovali, subelongatâ, subdepressâ, concentricè multi-



sulcatâ, violascente-fulvo radiatim fasciatâ; margine dorsali albâ, fusco maculatâ; lunulâ lividâ.

Shell rather more depressed and elongated than the preceding, not so elevated and angular at the posterior side, and having the dorsal margins white marked with angular spots of brown, radiated with brown, which becomes of a blackish-violet near the ventral edge; lunule well defined and of a strong purple tint.

The shell agrees well with Lamarck's description, with the exception of its being of a large size.

St. Nicholas, Island of Zebu, Philippines. *Cuming*.

49. CYTHERÆA LILACINA (pl. cxxx. f. 74), *Lamarck*, Anim. s. vert. *Cyth.* no. 15.

Cyth. testâ ovali, ventricosâ, concentricè sulcatâ, fulvâ, obscure radiatâ, posticè subangulatâ; margine dorsali livido; lunulâ distinctâ, lividâ.

Shell ventricose, oval, sulcated, brown, with obscure rays; hinder side rather angulated; dorsal margin of a dull purplish tint.

Island of Corigidor; *Cuming*.

50. CYTHERÆA OBESA (pl. cxxxi. f. 83, 84), *Sowerby*, *jun.*

Cyth. testâ ovali, lævigatâ, ventricosâ, crassâ, obscure biradiatâ, in radiis maculatâ; lunulâ impressâ.

Shell oval, smooth, ventricose, thick, cream-coloured in the middle, dull white near the margins, rayed obscurely with two broad bands, upon which are reddish square spots.

Locality unknown. We have seen only the one specimen figured from Mr. Cuming's collection.

51. CYTHERÆA PIPERITA (pl. cxxxvi. f. 175), *Sowerby*, *jun.*

Cyth. testâ lubricâ, parvâ, ovali, subdepressâ, pallidè fulvâ, griseo obscure radiatâ, maculis nigrescentibus parvis angulatis sparsâ; latere antico brevi, obscure sulcato, postico subacuminato; lunulâ distinctâ.

Shell very shining, rather small, oval, pale fawn, with very obscure rays of grey and sprinkled with sharp, black, angulated spots; anterior side short, with a few grooves; posterior side rather acuminated; lunule distinct.

Island of Burias, Philippines. *Cumina*.



52. CYTHERÆA PHILIPPINARUM (pl. cxxxvi. f. 176), *Hanley*, MS.

Cyth. testâ rotundatâ, ventricosâ, concentricè sulcatâ, subroseâ, maculis et radiis rubescentibus variegatâ; latere antico brevi, postico subquadrato; lunulâ et marginis dorsalis parte rubris.

Shell rounded, ventricose, concentrically grooved, of a rosy tint, variegated with purplish-red rays and spots; hinder side a little squared; front side short; lunule and edges of the ligamental fulcrum reddish.

Philippines. *Cuming*.

53. CYTHERÆA FLORIDA (pl. cxxxvi. f. 193, 194, 195, 196), *Lamarck*, Anim. s. vert. *Cyth.* no. 20.

Cyth. testâ ovali, subdepressâ, concentricè sulcatâ, subroseâ, maculis, lineis, et radiis rubescentibus variegatâ, intus plerumque purpureo nebulatâ; margine dorsali lineato; lunulâ parvâ, distinctâ.

Shell oval, depressed, concentrically grooved, pinkish, variegated with reddish spots, lines, and rays; anterior side short; lunule small, distinct; dorsal margin cross-lined; inside clouded with purple.

Locality unknown.

54. CYTHERÆA SIMPLEX (pl. cxxxvi. f. 182, 183), *Sowerby, jun.*

Cyth. testâ parvâ, solidâ, lævi, ovatâ, subdepressâ, grisescente-castaneâ; margine dorsali albo, nigrescente-fusco angulatim maculato; latere antico brevi, rotundato, postico subacuminato; lunulâ indistinctâ.

Shell small, solid, smooth, depressed, rather oval, of a deep chestnut colour, mingled with dark grey, and at the dorsal margins white, with dark, angular cross markings; anterior side short, rounded, posterior side rather acuminate.

In Mr. Gubba's collection.

55. CYTHERÆA MODESTA (pl. cxxxvi. f. 184), *Sowerby, sen.*, Pro. Zool. Soc. 1835. p. 47.

"Cyth. testâ obovatâ, crassiusculâ, lævi, concentricè sulcatâ, sulcis obsoletiusculis; albo, fusco et fusco-purpurascente variâ; apicibus subprominulis; latere postico longiore, declivi."

Shell oval, smooth, concentrically grooved, variegated with whitish-brown and purplish-brown; hinder side rather lengthened and sloping, so as to meet the vertical margin in an angle.

Xippixapi, Central America. *Cuming*.



56. *CYTHERÆA MULTISTRIATA* (pl. cxxxvi. f. 177), *Sowerby, junior.*

Cyth. testâ ovali, subelongatâ, concentricè striatâ, fulvâ, fusco et roseo variegatâ et interruptim radiatâ; latere antico brevi, postico subacuminato; lunulâ rubrâ.

Shell oval, rather elongated, concentrically striated, buff, variegated with pinkish-brown waved lines and interrupted rays; anterior side rather short, hinder side rather lengthened and acuminate; lunule rose-coloured, scarcely defined.

New Zealand, *Mr. Hart.* *Mus. Cuming* and *Sowerby.*

57. *CYTHERÆA GIGANTEA* (pl. cxxxi. f. 86), *Linn. Syst. Nat. Gmel.,* p. 3282.

Cyth. testâ oblongâ, subovali, compressâ, lævi, magnâ, rubescente-fulvâ, maculis quadratis fusco-nigrescentibus interruptim radiatâ, intûs albâ; latere antico brevi, subacuminato, postico elongato, ad terminum subquadrato; margine dorsali subretuso; ligamento elongato; lunulâ oblongâ, distinctâ.

Shell oblong, rather flat, smooth, large, of a pinkish fawn-colour with broad dark square spots disposed in rays, white within; anterior side short, but rather narrowed at the end; posterior side long, rather squared at the end; posterior dorsal margin rather retuse; ligament long; lunule distinct. It attains a much larger size than the specimen figured, which is reduced one-half.

Gulf of Mexico.

58. *CYTHERÆA AURANTIA* (pl. cxxxii. f. 97 bis), *Hanley, Sp. of Shells,* appendix. *Wood, Supp.,* pl. 15. f. 20.

Cyth. testâ ovali, crassâ, lævigatâ, aurantiacâ, intûs albâ, epidermide fuscâ indutâ; latere antico brevi, rotundato, latere postico obscurè biangulato, ad terminum subacuminato; ligamento elongato; lunulâ elongatâ, distinctâ.

Shell oval, thick, smooth, of an orange-colour, paling off towards the umbones to a fawn tint, covered with a rather thick reddish-brown epidermis; ligament long; lunule long, defined by an impressed line; anterior side short, rounded; posterior side with two very obtuse radiating angles, rather acuminate at the basal termination. I figure a fine specimen from Mr. Cuming's collection.

59. *CYTHERÆA CHIONE* (pl. cxxxii. f. 98), *Linnaeus,* p. 1131.

Cyth. testâ ovali, crassâ, subcompressâ, lævigatâ, fulvâ, fusco-



rubescence maculatâ et radiatâ; latere antico brevi, rotundato, postico rotundato; lunulâ elongatâ, distinctâ, vix tumidâ; ligamento subelongato; margine dorsali subelevato.

Shell oval, rather compressed, smooth, fawn-coloured, with brown rays and spots; anterior side short, rounded; lunule rather long, defined, and raised; posterior side rounded, elevated at the dorsal margin.

England, and the Mediterranean. Mr. Cuming's specimens are from Mazatlan.

60. CYTHERÆA MACULATA (pl. cxxxi. f. 93, 94, 97), *Linnaeus*, p. 1132.

Cyth. testâ *C. Chioni* simili, sed anticè elongatiusculâ, prope lunulam magis excavatâ, posticè subacuminatâ, subangulatâ; lunulâ tumidâ.

Shell generally flatter and less rounded than *C. Chiono*, with the dorsal margin and lunule tumid. The colouring is arranged in square spots, disposed angularly, and partly collected into two central rays; in one variety these spots are purple.

South America. The very acuminated variety, fig. 93, 94, is from Australia, in Mr. Cuming's collection. The posterior elongation does not commence till the shell has attained a considerable growth.

61. CYTHERÆA UNICOLOR (pl. cxxxi. f. 90, 91), *Sowerby*, *sen.*, Pro. Zool. Soc. 1835. p. 23.

“Cyth. testâ ovato-subcordiformi, crassiusculâ, brunnescente, lævi, politâ; latere antico posticoque concentricè sulcatis, sulcis medio obsoletis; latere postico longiore, versus partem ventralem subacuminato; margine ventrali lævi, intùs purpurascente.”

Shell heart-shaped, rather thick, whitish or brown, smooth, grooved at the sides, plain in the middle; the hinder side longest, angulated, and near the ventral margin rather acuminated.

Xippixapi, West Columbia; coarse sand, at 6 fathoms. *Cuming*.

61.\* CYTHERÆA SQUALIDA (pl. cxxxi. f. 87, 88, 89), *Sowerby*, Pro. Zool. Soc. 1835. p. 23. Var. *C. biradiata*, *Beechey's Voyage*.

“Cyth. testâ ovato-subcordatâ, crassiusculâ, rubente-albicante radiatâ; latere postico longiore, subacuminato; costellis numerosis, concentricis, obtusis, concinnis, confertis.”

Shell more angulated posteriorly than *C. maculata*, and with the lunule and dorsal margin less tumid. Although named from the



dull greyish-brown tint which prevails in the species, some of the varieties are beautifully variegated; for instance, the variety fig. 87, from California, in the collection of Mr. Gubba, and the biradiate variety with bright purple bands, from the Philippines (*C. biradiata*, Beechey's Voyage). The species was first named from specimens brought from the Philippine Islands by Mr. Cuming.

62. CYTHERÆA AFFINIS (pl. cxxxii. f. 101), Pro. Zool. Soc. 1835. p. 45.

"Cyth. testâ ovato-oblongâ, planiusculâ, lineis distantibus elevatis subacutis concentricis albente-violaceis radiatâ, posticè vix sublobatâ; areâ posticâ violaceâ; lunulâ pallidâ, intus albâ; limbo interno lævi; epidermide fuscâ, tenui."

Shell oblong-ovate, rather compressed, ribbed concentrically, white, with pinkish rays, anterior side short, rounded; posterior side lengthened, angulated, and acuminate, and near the angle sinuated; ligament long; lunule short, defined.

Xippixapi, West Columbia. *Cuming.*

63. CYTHERÆA TORTUOSA (pl. cxxxii. f. 102, 103), *Broderip*, Pro. Zool. Soc. 1835. p. 45.

"Cyth. testâ obliquè cordatâ, posticè sublobatâ, lineis frequentibus subconcentricis obtusis posticè irregularibus, albâ, umbones versus subspadiceo-albâ."

Shell more rounded and more ventricose than *C. affinis*, less angular and acuminate posteriorly, with the ribs in some instances divided and irregular. We have a dark reddish-brown and a white variety.

Xippixapi, West Columbia. *Cuming.*

64. CYTHERÆA CONCINNA (pl. cxxxii. f. 99, 100), *Sowerby, sen.*, Pro. Zool. Soc. 1835. p. 23.

"Cyth. testâ ovato-subcordatâ, crassiusculâ, rubente-albicante radiatâ; latere postico longiore, subacuminato; costellis numerosis, concentricis, obtusis, concinnis, confertis."

Shell shaped like *C. distorta*, but with the ribs very much more close and numerous; the hinder side acuminate, but not angular; colour brown with white rays, or white with one or two brown rays, or with numerous beautifully softened and divided pink rays.

Panama; in ten fathoms, fine sand. *Cuming.* The first-mentioned variety, fig. 100, is in the collection of Mr. Gubba.



65. CYTHERÆA CIRCINATA (pl. cxxxii. f. 104, 105, 106), *Born*, Mus. t. 4. f. 8. Venus rubra, *Gmel.* 3288? *C. alternata*, *Broderip*, Pro. Zool. Soc. 1835. p. 45.

Cyth. testâ ovali-subrotundatâ, ventricosâ, altâ, albâ rubro-radiatâ seu omnino purpureâ; laminis erectis, acutimarginatis, in medio numerosis, ad latera distantioribus, productionibus, concentricè costatâ; margine dorsali plerumque purpureo; lunulâ distinctâ, plerumque purpureâ.

Shell rather rounded, ventricose, with laminar ribs, which are less numerous and broader at the sides, particularly at the anterior, white, with purple rays, or entirely purple, generally with the dorsal margin and lunule of a darker purple. The ribs are unequal, and in the variety named *C. alternata* by Broderip, every alternate one dies out near the sides, the other being more expanded.

Mazatlan, *Donnel*, *R.N.* Var. *C. alternata*, fig. 104, West Columbia; dredged in sandy mud at fifteen fathoms. *Cuming*.

66. CYTHERÆA CYGNUS (pl. cxxxii. f. 107), *Lamarck*, Anim. s. vert. *Cyth.* no. 77.

Cyth. testâ albâ, *C. circinata* simili, sed umbonibus ventricosis, elevatis; margine dorsali retuso, subplanulato; lunulâ magnâ, cordiformi, distinctâ, impressâ.

Shell more ventricose, with larger and more elevated umboes than *C. circinata*; the posterior dorsal margin retuse; the lunule large and distinct.

Locality unknown. *Mus. Cuming*.

67. CYTHERÆA DIONE (pl. cxxxii. f. 110), *Linnaeus*, Syst. Nat. p. 1128.

Cyth. testâ ovali, subventricosâ, albâ, violaceo tinctâ, laminis elevatis acutis usque ad angulum cinctâ, posticè subelongatâ, angulatâ, ad angulum spinis elongatiusculis ornatâ, post angulum vix striatâ; prope umbonem serie alterâ spinarum breviuscularum; margine dorsali declivi, subinflatâ, nonnunquam roseâ; lunulâ parvâ, nonnunquam roseâ, distinctâ; latere antico laminis alteris evanidis, alteris expansis.

Shell oval, with two rows of spines at the hinder side, one at the angle with the spines long, the other behind, near the umbones, with the spines shorter; laminæ erect and sharp-edged, some reaching to the front as far as the edge of the lunule, where they are much expanded, others terminating sooner.

Venezuela and Trinidad.



68. CYTHERÆA ROSEA (pl. cxxxii. f. 108), *Broderip* and *Sowerby*, Zool. Journ. vol. iv. p. 48. *C. lepida*, *Chénu*, Conch. Illustr.

Cyth. testâ quam *C. Dione* magis compressâ, purpureâ, costis numerosis, rotundis; latere antico laminis prominulis, acutis, raris; latere postico ad angulum serie unâ spinarum incipientium.

Shell much flatter than *C. Dione*, nearly all rosy-purple, with numerous rounded concentric ribs; anteriorly with a few prominent sharp-edged laminæ; posteriorly with a row of rudimentary spines at the angle.

Panama. *Cuming*.

69. CYTHERÆA LUPINARIA (pl. cxxxii. f. 111), *Lesson*, Centurie Zoologique, pl. 64. p. 196. *C. semilamellosa*, *Chénu*, Conch. Illustr. pl. 9. f. 9.

Cyth. *C. Dioni* simili, sed laminis medio evanidis; latere postico lævigato; spinis elongatiusculis.

Shell larger than *C. Dione*, with the ribs flatter, and near the angle almost vanishing; posterior side smooth; spines long, with purple spots at the base.

Real Llejos, Central America. *Cuming*.

70. CYTHERÆA MULTISPINOSA (pl. cxxxii. f. 112), *Sowerby, jun.*

Cyth. testâ quam *C. Dione* magis ventricosâ; laminis magis elevatis, subæqualibus, ad angulum subtruncatis; spinis magis numerosis.

The laminæ are much elevated and nearly equal, terminating near the spines in an abrupt declivity; spines more numerous and sharp than in *C. Dione*.

Tombez, Peru; in soft mud, at ten fathoms. *Cuming*.

71. CYTHERÆA BREVISPINOSA (pl. cxxxii. f. 109), *Sowerby, jun.*

Cyth. testâ albâ, *C. Dioni* simili, sed costis rotundatis; spinis brevissimis, in serie unicâ depositis; anticè laminis paucis elevatis; margine dorsali prope umbones subretuso.

Shell white, with the ribs rounded, except at the anterior side, where a few of them are elevated into broad laminæ; one row of spines very short. We have only the specimen figured from Mr. *Cuming*'s collection, from California.

72. CYTHERÆA VULNERATA (pl. cxxxi. f. 95, 96), *Broderip*, Pro. Zool. Soc. 1835. p. 46.

"Cyth. testâ subglobosâ, lineis concentricis creberrimis lævibus,



albente, fasciis angustis purpureo-sanguineis hinc et hinc ornatâ; lunulâ et arcâ posticâ subatropurpureis; limbo ventrali rubro, intus subcrenulato; epidermide subfuscâ, intus albâ subroseo suffusâ.”

Shell of an oval form, with fine raised concentric lines; white, with here and there a concentric narrow line or band of a sanguineous tint; red margin, slightly crenulated within.

Real Llejos, Central America. *Cuming*.

73. *CYTHERÆA ALBINA* (pl. cxxxiii. f. 121), *Lamarck*, Anim. s. vert. *Cyth.* no. 25.

*Cyth.* testâ crassâ, rotundato-subtrigonâ, albâ, altâ, concentricè obscure striatâ; latere antico brevi, recto, declivi; lunulâ indistinctâ.

Shell thick, of a somewhat trigonal form, rather rounded, white, with obscure concentric ridges; the anterior side very short, and leaning straight down towards the ventral margin; no distinct lunule.

74. *CYTHERÆA TRIGONA* (pl. cxxxiii. f. 120). *Artemis trigona*, *Reeve*, Conch. Icon.

*Cyth.* testâ, crassâ, altâ, ventricosâ, subtrigonâ, concentricè costellatâ, albâ; latere postico declivi, ad marginem ventralem sublobato; latere antico brevi, declivi; lunulâ magnâ, ovali, distinctâ.

Shell more trigonal than *C. albina*, and more distinctly ribbed; the ventral margin almost emarginated; the anterior side very short, with a large oval lunule defined by an impressed line.

75. *CYTHERÆA ROSTRATA* (pl. cxxxiii. f. 122), *Koch*, Phil. Abb. *Cyth.* t. 1. f. 3.

*Cyth.* testâ obliquè ovali, pallidissimè fulvâ, concentricè substriatâ; latere postico elongato, ad terminum subquadrato, obscure radiatim unisulcato; latere antico brevissimo, declivi, subangulato; lunulâ distinctâ.

Shell obliquely oval, almost white, irregularly and finely striated; the hinder side elongated, square at the end, with an obscure radiating groove; umbones elevated; anterior side very short, leaning straight down to the ventral margin, and rather angulated; lunule large, distinct.

Brazil.

75\*. *CYTHERÆA ACUMINATA* (pl. cxxxvi. f. 178), *Sowerby, jun.*

*Cyth.* testâ parvâ, albâ, subtrigonâ, compressâ, elevatâ, concen



triciè striatâ; latere postico acuminato, subangulato; latere antico breviusculo, subinflato; lunulâ magnâ, distinctâ.

Like a miniature of *C. trigona*, but flatter, more acuminate behind, and more finely striated.

Locality unknown. *Mus. Sowerby.*

76. CYTHERÆA TELLINOIDEA (pl. cxxxvi. f. 191), *Sowerby, jun.*

Cyth. testâ ovali, compressâ, lævi, subalbidâ; latere postico subelongato, acuminato, margine dorsali declivi, subangulato, margine ventrali posticè subemarginato; latere antico brevi, rotundato, lunulâ angustatâ, distinctâ, complanatâ.

Shell oval, flat, smooth, nearly white; posterior side long, acuminate, lobed, with the dorsal margin sloping; anterior side short, rounded, with the lunule narrow, flat, and distinct. One specimen of this shell, which has the appearance of a *Tellina*, is in the collection of Mr. Hanley.

77. CYTHERÆA MANILLÆ (pl. cxxxvi. f. 180, 181), *Sowerby, jun.*

Cyth. testâ ovali-subtrigonâ, ventricosâ, albâ, concentricè striatâ, posticè acuminatâ, sublobatâ, anticè breviusculâ; lunulâ latâ, subcomplanatâ, distinctâ.

Shell of an oval or subtrigonal form, ventricose, white, concentrically striated; the hinder side lobed and acuminate, the anterior side shorter; the lunule broad, flattish, distinct.

Mr. Cuming's specimens are from Manilla.

78. CYTHERÆA INDECORA (pl. cxxxvi. f. 179), *Philippi*, Abbild. *Cyth.* t. 9. f. 7.

“Cyth. testâ cordato-trigonâ, satis tumidâ, utrinque subangulatâ, exquisitè transversim sulcato-strigatâ, albâ, epidermide lutescente obductâ; lunulâ magnâ, cordatâ, lineâ impressâ circumscriptâ, cæterum haud distinctâ; arcâ nullâ; ligamento suboculto.”  
“Patria, Mergui; legit Th. Philippi.”

The shell which we have figured is in the collection of Mr. Sowerby, sen. Although scarcely trigonal enough, it agrees on the whole with the above description.

79. CYTHERÆA FLUCTUATA (pl. cxxxvi. f. 185, 186), *Sowerby, jun.*

Cyth. testâ ovali, subventricosâ, albâ, epidermide subviridi indutâ, lincis rubescentibus angulatim fluctuatâ, concentricè striatâ;



latere antico brevi, subacuminato, lunulâ distinctâ; latere postico subquadrato, margine dorsali elevato; ligamento retuso.

Shell of a somewhat rounded oval form, white, with angular markings, and a light greenish epidermis, concentrically striated; anterior side short, with a distinct lunule; posterior side rather squared, with the dorsal margin elevated, and the ligament nearly hidden.

The larger specimen figured is in Mr. Cuming's collection, from St. Elena; the smaller, which, although less ventricose and more oval, resembles the younger portion of the other, is Mr. Hanley's.

80. CYTHERÆA BELCHERI (pl. cxxxvi. f. 188), *Sowerby, jun.*

Cyth. testâ subovali, fulvâ, concentricè sulcis subundulatis rugatâ; umbonibus elevatis, acuminatis; latere postico subacuminato, margine dorsali declivi; latere antico breviusculo, declivi, lunulâ vix distinctâ.

The surface of this little brownish shell is roughened by a kind of concentric ripple-mark; the elevated umbones and sloping sides give a somewhat triangular appearance to an otherwise oval form.

The only specimen we have seen was brought by Capt. Belcher, and is in Mr. Hanley's possession.

81. CYTHERÆA ANGULIFERA (pl. cxxxvi. f. 189), *Sowerby, jun.*

Cyth. testâ oblongo-subovali, albâ, maculis angulatis sparsim subradiatim pictâ, concentricè striatâ; latere postico elongato, subacuminato; latere antico brevi, lunulâ parvâ, distinctâ.

Shell rather elongated, oval, whitish, with angular dark reddish-brown markings, striated concentrically; hinder side rather lengthened, acuminated, with the dorsal edge sloping; front side short, sloped, with small, distinct lunule.

82. CYTHERÆA PANNOSA (pl. cxxxiii. f. 140, 141, 142), *Sowerby, sen.*, Pro. Zool. Soc. 1835. p. 47. C. lutea, *Koch*, Phil. Abbild. t. iii. f. 5.

"Cyth. testâ subovatâ, crassiusculâ, lævi, albicante, maculis strigis lineisve angulatis luridis obscure pictâ; apicibus subprominentibus."

Shell rather oval, with straight falling sides, smooth, rather thick, whitish, variously ornamented with brown rays and lines and angular markings; lunule small and distinct.

Coquimbo; in sandy mud at low water. *Cuming.*



83. CYTHERÆA ALBO-CINCTA (pl. cxxxvi. f. 187), *Sowerby, jun.*

Cyth. testâ ovali, subtrigonâ, parvâ, solidâ, fulvâ, albo-fasciatâ, minutissimè striatâ; latere postico declivi, acuminato; latere antico declivi, breviusculo, lunulâ subdistinctâ.

Shell small, solid, sub-ovate, with sloping sides, dull pale brown, with white bands, very finely striated; lunule not very distinct.

Brought by Captain Belcher; specimens in Mr. Hanley's and Mr. Sowerby's collections.

84. CYTHERÆA LÆTA (pl. cxxxiii. f. 123, 124), *Linn. Syst. Nat.* 1132. *C. prora*, *Conrad*, *A. N. S. Phil.* vol. vii. p. 253. t. 19. f. 18. *V. affinis*, *Gmel.* ?

Cyth. testâ inflatâ, subrotundatâ, lævi, albidâ, fasciis fulvis interruptim radiatâ, intus roseâ; latere postico rotundatim subquadrato, margine dorsali inflato, margine ventrali anticè elevato; latere antico brevissimo, carinâ unâ angulato; lunulâ distinctâ, subexcavatâ.

Shell very inflated, rounded, smooth, pinkish-white, with generally interrupted reddish-brown unequal rays; hinder side slightly quadrate, with elevated and inflated dorsal margin; front side short, with the ventral margin raised upwards, meeting at an angle a sort of blunt keel surrounding the lunule, which is distinct and rather hollow. There is a tinge of pink inside under the umbones.

Mr. Cuming's specimens are from Albay, Island of Luzon, Philippines.

85. CYTHERÆA OBLIQUATA (pl. cxxxii. f. 125, 126), *Hanley*, *Sp. of Shells*, Appendix; *Wood*, *Suppl.* pl. 15. f. 24.

Cyth. testâ *C. læta* simili, sed magis obliquatâ, magis depressâ; albâ, prope umbones fusco punctatâ.

Shell like *C. læta*, but more oblique, more depressed; white, with small spots of brown near the umbones.

Philippines. *Cuming.*

86. CYTHERÆA CITRINA (pl. cxxxii. f. 117, 118), *Lamarck*, *Anim. s. vert. Cyth.* no. 24.

Cyth. testâ ovali, ventricosâ, citrinâ vel pallidè luteâ, posticè latè purpureo unifasciatâ, irregulariter concentricè striatâ; latere postico subdeclivi; latere antico brevi; lunulâ latâ, distinctâ.



Shell oval, irregularly striated, very ventricose, of an orange or pale yellow tint, with a broad purple band at the posterior side, which is rather sloped and slightly squared; anterior side short, rounded, and with a very broad lunule, defined.

The orange-coloured specimen is Mr. Sowerby's; the other was collected by Mr. Cuming at Albay, Island of Luzon, Philippines.

87. *CYTHERÆA STRIATA* (pl. cxxxii. f. 113, 114, 115), *Gray?* in *Analyst*, 1838. *C. citrina*, *Lam.*, *Chénu*, *Conch. Ill.*; *Wood*, &c.

Cyth. testâ *C. citrinæ* simili, sed magis compressâ, posticè prope marginem dorsalem subangulatâ; margine dorsali declivi, subcomplanato. Nonnunquam occurrit alba.

Figured in the 'Illustrations Conchyliologiques' as *C. citrina* of Lamarck, but not agreeing so well with the description as the one given above. This shell is more compressed than *C. citrina*, with a sloping and somewhat angulated posterior dorsal edge.

River Gambia. *Mus. Cuming*.

88. *CYTHERÆA SUBINFLATA* (pl. cxxxii. f. 116), *Sowerby, jun.*

Cyth. testâ ventricosâ, subrotundatâ, lævi, fulvâ, prope umbones angulatim maculatâ, tùm albo radiatâ; umbonibus elevatis, inflatis; latere postico rotundatim subquadrato; latere antico brevi, lunulâ distinctâ.

Shell ventricose, rather rounded, smooth, fawn-coloured, the umbones elevated, inflated, and marked with undulating lines; hinder side slightly squared; front side rounded, short, with defined lunule.

Locality unknown. *Mus. Sowerby*.

89. *CYTHERÆA INFLATA* (pl. cxxxiii. f. 127, 128), *Sowerby, jun.*

Cyth. testâ inflatâ, subovali, lævi, albâ, fusco radiatim variegatâ; latere postico subquadrato; latere antico rotundato, breviusculo, margine ventrali elevato; lunulâ indistinctâ, subexcavatâ; umbonibus subretrorsis.

Shell ventricose, oval, smooth, white, with brown variegated rays on the upper part. The umbones, which are inflated, have a tendency to lean backwards; the ventral margin is raised in front to meet the rather hollow surface, which contains a broad but rather indistinct lunule.

Moluccas; also St. Nicholas, Island of Zebu, Philippines. *Cuming*.



90. *CYTHERÆA CONVEXA* (pl. cxxxii. f. 119), *Say*. C. Sayana, *Conrad*, *Silliman's Journal*, vol. xxiii. p. 345.

Cyth. testâ ovali, ventricosâ, fulvâ, subrugosâ; latere antico brevi; lunulâ vix distinctâ.

Shell oval, brownish, ventricose, roughened by concentric irregular and rather coarse striæ.

Rhode Island; New Jersey. Specimens, Mr. Cuming's and Mr. Hanley's.

91. *CYTHERÆA PALLESCENS* (pl. cxxxii. f. 135), *Sowerby, sen.*, *Pro. Zool. Soc.* 1835. p. 47.

"Cyth. testâ obovatâ, tenui, pallidè lutescente, lævi, concentricè striatâ; latere antico breviorè, apicibus subprominulis; impressione cordiformi, anticâ elongatâ, distinctâ."

Shell of an oval flattish form, rather light, pale yellowish, or with a purplish tinge near the umbones; concentric striæ so fine as to give a silky appearance to the surface.

Island of Annaa, Pomoutian Group; in coral sand. *Cuming*.

92. *CYTHERÆA INCONSPICUA* (pl. cxxxii. f. 133, 134), *Sowerby, sen.*, *Pro. Zool. Soc.* 1835. p. 47.

"Cyth. testâ obovatâ, crassiusculâ, lævi, albidâ, concentricè striatâ, striis exilissimis; epidermide tenuissimâ, pallidè subfuscâ; apicibus subprominulis; impressione cordiformi, anticâ ovatâ, inconspicuâ."

Shell more thick, and with the striæ more distinct than the preceding.

Payta, Peru. *Cuming*.

92\*. *CYTHERÆA KINGII* (pl. cxxxiii. f. 129, 130, 131, 132), *Gray*, *Wood's Suppl. Venus*, f. 9. C. modesta, *Philippi*, *Abbild. t. iii. f. 3*. Var. C. *Lamarckii*, *Gray*, *Analyst*, 1838; *Hanley*, *Recent Shells*, p. 103. Var. C. *albida*, *Gray*? Var. C. *bilunulata*, *Brit. Mus.*

Cyth. testâ ovali-oblongâ, subcompressâ, medio lævigatâ, ad latera substriatâ, albidâ, castaneo fasciatim variè radiatâ; latere antico brevi, declivi, lunulâ elongatâ, subcomplanatâ, distinctâ; latere postico elongato, subquadrato, margine dorsali subelevato.

Shell oval, oblong, not very ventricose, smooth in the middle, slightly striated at the sides; whitish, generally with chestnut rays either linear or broad; anterior side short, sloped, with the lunule long and defined; hinder side elongated, rather square,



with the dorsal edge rather elevated. This description will include the several varieties, which have been differently named: Fig. 132, *C. bilunulata*, Brit. Mus.; fig. 129, *C. Lamarckii*, Gray, the chestnut rays nearly covering the shell, and only leaving white rays; fig. 130, *C. Kingii*, Gray (*C. modesta*, Philippi), with narrow interrupted rays, in Mr. Hanley's cabinet, and also that of Mr. Cuming (brought by Dr. Hornbeck from the island of St. Thomas, West Indies); and fig. 131, rather longer than the others and white, from Nicobar (*Cuming*).

93. CYTHERÆA PELLUCIDA (pl. cxxxvi. f. 190), *Lamarck*, Anim. s. vert. *Cyth.* no. 43.

Cyth. testâ rotundatâ, ventricosâ, tenui, lævi, albidâ, maculis fuscis angulatis seriatim radiatâ; latere antico brevi, lunulâ parvâ, indistinctâ, purpureâ; latere postico subquadrato, margine dorsali elevato.

Shell rounded, rather ventricose, very thin, smooth, whitish, with interrupted light-brown rays, and a little purple spot on the lunule close to the umbones; anterior side short, sloping; posterior side rather squarish, with the dorsal margin elevated.

New Holland. *Mus. Hanley*.

94. CYTHERÆA SUBPELLUCIDA (pl. cxxxiii. f. 136), *Sowerby*, junior.

Cyth. testâ subovali, ventricosâ, tenui, lævi, purpurascente-griseâ, maculis fuscis seriatim radiatâ; latere antico brevi, lunulâ indistinctâ; latere postico subelongato, subquadrato, margine dorsali declivi; umbonibus prominulis.

Shell resembling *C. pellucida*, but of a darker colour, more elongated posteriorly and having the dorsal edge more sloping; it has not the purple spot on the lunule.

Albay, Island of Luzon, Philippines. *Cuming*.

95. CYTHERÆA VARIANS (pl. cxxxiii. f. 138, 139), *Hanley*, Sp. of Shells, Wood's Suppl. pl. 15. f. 33. *C. rubiginosa*, *Philippi*, Abbild. pl. iii. f. 2.

Cyth. testâ subovali, ventricosâ, concentricè striatâ, albidâ, pallidè fulvo vel interruptim fusco radiatâ; latere antico brevi, subacuminato, lunulâ magnâ, subcomplanatâ, distinctâ, ad umbones purpureo unipunctatâ; latere postico vix quadrato; arcâ dorsali maculatâ, subcarinatâ; margine ventrali rotundato.

Shell oval, ventricose, concentrically striated, whitish, with either pale-brownish rays or else sharp angular bright-reddish



spots in rays; anterior side rather acuminate, with the lunule distinct, rather flat, and having a bright-purple spot close to the umbones; posterior side with the dorsal margin sloped, and presenting a variegated area enclosed by a scarcely elevated keel.

Locality unknown. *Mus. Hanley.*

96. CYTHERÆA BULLATA (pl. cxxxvi. f. 192), *Sowerby, jun.*

Cyth. testâ oblongo-subquadrâtâ, albâ, tenui, concentricè substriatâ, ventricosâ; umbonibus inflatis; latere antico brevè subacuminato, supernè subexcavato, lunulâ distinctâ; latere postico quadrato, subangulato, margine dorsali declivi, margine ventrali rectiusculo.

Shell white, oblong, ventricose, thin, smooth, with the umbones large and inflated; the front side small and almost acuminate; the hinder side somewhat quadrate and angular; the ventral edge rather straight, and the dorsal edge sloped.

Locality unknown. *Mus. Sowerby.*

97. CYTHERÆA VENETIANA (pl. cxxxvi. f. 197, 198, 199), *Lamarck*, Anim. s. vert. *Cyth.* no. 35.

Cyth. testâ subovali, ventricosâ, lævi, albidâ, fusco variè pictâ; lunulâ et areâ dorsali rubro maculatis; latere antico brevî, lunulâ distinctâ; latere postico subdeclivi, subrotundato.

Shell of a rather short oval form, very ventricose, smooth, whitish, variously marked with brown; the anterior side short, with the lunule defined, reddish, and covered with reddish-brown markings; dorsal margin sloped, with a reddish area marked with reddish-brown.

Mediterranean.

98. CYTHERÆA LIMATULA (pl. cxxxvi. f. 200, 201), *Sowerby, junior.*

Cyth. testâ oblongâ, subventricosâ, politâ, pallidè luteâ, maculis fuscis angulatis seriatim positâ hinc et hinc radiatâ; latere antico brevî, lunulâ distinctâ, partim fusco pictâ; latere postico subquadrato; areâ dorsali fusco pictâ; margine ventrali rectiusculo.

Shell more quadrate than *C. Venetiana*, with the ventral margin nearly straight, a peculiar smoothness of surface, with very dark chestnut-brown on the dorsal area and also covering part of the lunule with a ragged edge.

Locality unknown. *Mus. Hanley.*



99. CYTHERÆA FULMINATA (pl. cxxxiii. f. 137), *Valenciennes*, Enc. Méth. t. 268. f. 2; *Philippi*, Abbild. t. 111. f. 4.

Cyth. "testâ subrhombeâ, æquilaterâ, albâ, radiis fasciisque ziczacformibus interruptis rufis pictâ; areâ nullâ; lunulâ foveolâ cinctâ; dente cardinali postico striato."

From the figure, and the worn specimen in the British Museum, it appears to be rather trigonal and equilateral, but with the ventral margin much rounded and bulging. The rays are interrupted and of a reddish-brown colour.

Locality not known.

100. CYTHERÆA HEBRÆA (pl. cxxxiv. f. 143, 144, 148), *Lamarck*, Anim. s. vert. *Cyth.* no. 30. *Delessert*, Recueil, t. 8. f. 3.

Cyth. testâ crassâ, subovali, ventricosâ, omnino subundulatum concentricè sulcatâ, albâ, lineis angulatis et undulatis fasciatim radiatâ, intûs latè fusco-nigrescente pictâ; umbonibus prominulis; latere postico declivi, subacuminato, margine dorsali subtumido; latere antico breviusculo, rotundato, margine ventrali rotundato.

Shell rather thick, oval, ventricose, with the posterior side acuminate and the umbones elevated, sulcated, white, radiated with angular and undulated brown lines, in some instances clustered in bands; ventral edge rounded. A broad band of dark blackish or purplish brown occupies the centre of the interior.

Ticao, Philippines; *Cuming*. The large specimen figured is in the collection of Mr. Gubba.

101. CYTHERÆA SULCATINA (pl. cxxxiv. f. 145, 146), *Lamarck*, Anim. s. vert. *Cyth.* no. 29.

Cyth. testâ *C. Hebrææ* simili, sed medio lævigatâ, intûs albâ, extûs radiatim et concentricè fasciatâ, vel omnino nigrescente-castaneâ, anticè albo radiatâ.

This shell is smooth excepting at the sides, whereas *C. Hebrææ* is grooved all over; it is white or gently tinged with yellow inside. One variety is rayed with brown bands connected by undulating lines and bands in the opposite direction; the other is of a deep chestnut-brown all over, excepting at the anterior side, where it has several whitish rays.

Philippines. *Cuming*.

102. CYTHERÆA TRIMACULATA (pl. cxxxiv. f. 147), *Lamarck*, Anim. s. vert. *Cyth.* no. 41.

Cyth. testâ omnino sulcatâ ut in *C. Hebrææ*, posticè magis



rotundatâ, albidâ, castaneo radiatâ; lunulâ et areâ dorsali purpureis; intus sub umbones et ad impressiones laterales purpureo trimaculatâ.

The hinder side is not quite so acuminated as in *C. Hebræa*, and inside there are three broad purplish spots in each valve, one under the umbones, and one covering each lateral muscular impression. The dorsal area and lunule are both tinged with purplish-brown.

Pasacao and Catbalonga, Island of Samar, Philippines. *Cuming*.

103. CYTHERÆA CASTRENSIS (pl. cxxxiv. f. 151, 152, 153, 154), *Linnaeus* (*Venus castrensis*). Var. *Venus australis* et *Venus Lorenziana*, *Chemn.*

Cyth. testâ crassâ, rotundatâ, subdepressâ, lævi, ad latera concentricè subsulcatâ; albidâ, lineis vel maculis angulatis plus minus suffusis pictâ, nonnunquam griseo nebulatâ; latere antico breviusculo, rotundato, lunulâ distinctâ, subtumidâ; latere postico subquadrato; umbonibus et margine dorsali elevatis; intus pallii impressione integrâ.

Shell thick, flattish, rounded, smooth, slightly grooved at the sides, particularly the anterior; whitish, with angular lines or spots more or less spread, and sometimes with greyish cloudy colouring; anterior side rather the shorter; the upper part rather excavated, and the lunule tumid; posterior side rather squared, with the umbones and dorsal margin rather raised; no sinus in the pallial impression.

"Indian Ocean," *Lamarck*. Fig. 153, 154 are from specimens brought by Mr. Cuming from the Philippine Islands; fig. 153, from Mr. Gubba's collection, may be taken to represent the Australian variety.

104. CYTHERÆA ORNATA (pl. cxxxiv. f. 149), *Lamarck*, *Anim. s. vert. Cyth.* no. 32. Var. *C. picta*, *Lamarck*, no. 33. *V. castrensis*, var., *nonnul.*

Cyth. testâ *C. castrensi* simili, sed magis obliquâ, posticè sub-acuminatâ; lineis clongatis, suffusis, et obliquis; sulcis nullis.

Shell more oblique than *C. castrensis*, quite smooth, the hinder part more sloping and acuminated, the colouring in lines spread at one side and very obliquely angulated.

Philippines. *Cuming*.

105. CYTHERÆA HIEROGLYPHICA (pl. cxxxiv. f. 150), *Conrad*,



Journ. A. N. S. Phil. vol. vii. p. 253. t. 19. f. 22. *Philippi*, Abbild. *Cyth.* t. 3. f. 4. *Hanley*, Sp. of Shells, p. 104.

*Cyth.* testâ *C. castrensis* simili, sed magis ovali; latere postico magis elongato, subquadrato, margine ventrali magis rotundato; maculis parvis, angulatim dispositis.

Shell much more oval than *C. castrensis*, with the hinder side longer and the ventral margin more bulging. The spots are small, arranged so as to form angular lines.

Sandwich Islands.

106. CYTHERÆA FASTIGIATA (pl. cxxxv. f. 158, 159), *Sowerby, jun.*

*Cyth.* testâ *C. castrensis* simili, sed ovali, posticè attenuatâ, subacuminatâ; umbonibus parvulis; lunulâ subcomplanatâ, griseo angulatim variegatâ.

Shell more oval than *C. castrensis*, and with the dorsal margin much less sloped than *C. tigrina*; the umbones are much smaller than in the former, with the lunule rather flatter; the colouring is arranged in large angles, either linear or broad, greyish-brown.

Sydney; *Jukes*. Cabinets of Cuming and Sowerby.

107. CYTHERÆA TIGRINA (pl. cxxxv. f. 155, 156, 157), *Lamarck*, Anim. s. vert. *Cyth.* no. 34. V. *castrensis*, V. *picta*, et V. *ornata*, var., *nonnul.*

*Cyth.* testâ crassâ, subovali, ventricosâ, medio lævi, ad latera et marginem ventralem undulatim sulcatâ; umbonibus prominulis; lunulâ subcomplanatâ; margine dorsali declivi; latere antico brevi, rotundato; latere antico subattenuato, ad terminum subquadrato; colore intùs croceo, extùs albido, fusco-rubesciente angulatim variè disposito.

Shell thick, rather oval, ventricose, smooth in the middle, but grooved at the sides and towards the ventral margin; whitish, with various markings of dark reddish-brown placed angularly; dorsal margins much sloped; posterior side rather attenuated and squarish at the end. All the specimens have a tinge of yellow inside, and var. fig. 155 has also a good deal of purplish-black near the edge.

Catbalonga, Island of Samar, Philippines. *Cuming*.

108. CYTHERÆA ARABICA (pl. cxxxv. f. 165, 166, 168), *Chemn.* Conch. f. 1968-70.

*Cyth.* testâ ovali, subquadratâ, subdepressâ, obtusè subundulatim



sulcatâ, albidâ, fasciis stramineis et punctis rubris, vel griseâ, maculis rubescentibus seriatim dispositis biradiatâ, vel aurantiacâ, fulvo radiatâ; intûs purpureo et aurantio variè pictâ; latere antico brevi, declivi, lunulâ subdistinctâ; latere postico oblongo, quadrato, margine dorsali paululum declivi, ad ligamentum vix recedente.

Shell oblong-oval, rather squared posteriorly, with fine, blunt, not quite continuous sulci, various in colouring, generally speckled and radiated, and painted within with orange and purple; anterior side very short and sloping, with the lunule not very distinct; posterior dorsal margin full up to the ligament.

Red Sea. Varieties, fig. 165, Mr. Cuming's collection, fig. 166 and 168, Mr. Gubba's.

109. CYTHERÆA LENTIGINOSA (pl. cxxxv. f. 160, 161, 162), *Chemnitz*, *Conch.* f. 1963, 1964. *C. Pfeifferi*, *Philippi*, *Abbild.* t. 9. f. 1.

Cyth. testâ ovali, subventricosâ, obtusissimè concentricè sulcatâ, sulcis subundulatis, fuscâ, vel pallidè fulvâ, grisescente, maculis et lineis nigrescentibus præcipuè ad margines pictâ, ad umbones purpurascente, intûs griseo nebulatâ; umbonibus obtusis; lunulâ subcomplanatâ; areâ dorsali excavatâ.

The grooves are more obtuse and less numerous than in *C. Arabica*; the shell is more oval, the umbones not quite so prominent, and the dorsal area is hollow. The colour is brown or yellowish, tinted with purplish-grey, particularly inside and at the umbones; at the edges all round there are diverging lines composed of blackish spots.

Red Sea.

110. CYTHERÆA ABBREVIATA (pl. cxxxv. f. 170, 171), *Lamarck*, *Anim. s. vert. Cyth.* no. 62; *Delessert*, *Recueil Choisi*, t. 9. f. 1.

Cyth. testâ *C. Arabicæ* simili, sed breviorè, anticè quadratâ; sulcis acutiusculis, magis distantibus, integris, continuis.

In the two rather different-looking shells which we figure under this name, the back part is much shorter and more square than in *C. Arabica*: this might be accidental, but the grooves are also more distant and sharp, and all continuous.

Indian Ocean, *Lamarck*. Var. fig. 170, Mr. Sowerby's specimen; fig. 171, Mr. Gubba's.

111. CYTHERÆA SUBELLIPTICA (pl. cxxxv. f. 169), *Sowerby*, *jun.*

Cyth. testâ ovali-rotundatâ, ventricosâ, distanter concentricè sul-



catâ, albâ; maculis angulatis magnis sparsis fasciatim dispositis; latere antico breviusculo, lunulâ vix distinctâ; latere postico obtusissimè subangulato; margine dorsali subdeclivi.

Shell of a rounded-oval form, ventricose, white, with broad angulated large spots disposed in two or three bands; concentrically ribbed, the ribs distant and rather sharp.

Locality unknown. *Mus. Cuming.*

112. CYTHERÆA CALYPIGA (pl. cxxxv. f. 164), *Born* (Venus), Mus. Cæs. t. 5. f. 1.

Cyth. testâ ovali-suboblongâ, compressâ, concentricè planulatim sulcatâ, albâ, fusco angulatim pictâ; latere antico brevi, lunulâ distinctâ, angustatâ; latere postico subelongato, margine dorsali subdeclivi.

The identification of this shell is conjectural; but it closely resembles the figure quoted. It is of a rather lengthened elliptical form, flat, with flattish concentric ridges, which are less distinct in the centre; white, with broad angular markings of reddish-brown defined by strong lines.

Locality unknown. *Mus. Cuming.*

113. CYTHERÆA ELEGANS (pl. cxxxv. f. 163), *Koch*, Philippi, Abbild. t. 1. f. 4.

Cyth. testâ ovali, lævigatâ, partim concentricè sulcatâ, albido-grisescete, fusco-rufescente, maculis magnis, binis, suffusis, radiatim pictâ, intùs purpureo ad margines pictâ; latere postico subacuminato, margine dorsali subrotundato.

Shell oval, smooth in the centre, but with slight ridges at the sides and near the ventral margin; of a mottled greyish colour, with two large, broad, radiating patches of rich reddish-brown; inside greyish-white, with touches of purplish-brown at the margins.

Swan River. *Mus. Cuming.*

114. CYTHERÆA ELLIPTICA (pl. cxxxv. f. 173, 174), *Sowerby, jun.* C. calypiga? *Philippi*, Abbild. t. 9. f. 1; non *Born*, t. 5. f. 1.

Cyth. testâ ovali, depressâ, lævigatâ, partim griseo-fulvâ, prope umbones purpurascete, ad marginem fulvâ, fusco angulatim pictâ; intùs albido-subcærulescente, ad margines fuscâ, in medio maculatâ; latere antico concentricè sulcato; latere postico longiusculo, striato; margine dorsali subplanulato, nigro-punctato; lunulâ elongatâ, parvâ, distinctâ.

Shell oval, flattish, smooth in the centre, anteriorly grooved,



posteriorly substriated, curiously coloured near the umbones and inside with mottled grey and purple; in the centre of the outer surface of a dull bay; at the margin yellow, with brown angular markings.

Locality unknown. Specimen in Mr. Cuming's collection.

115. *CYTHERÆA SPLENDENS* (pl. cxxxv. f. 167), *Sowerby, jun.*

Cyth. testâ *C. lentiginosæ* simili, sed magis rotundatâ; margine dorsali vix excavato, margine ventrali subinflato; colore pallidè fulvo, griseo nebulato, maculis obliquis castaneis suffusis utrinque variegato.

The difference between this species and *C. lentiginosa* is more easily seen than described. This is rather more rounded, and fuller at the dorsal margin; the colouring is a bright tortoise-shell, arranged in angular patches on each side, which join each other at intervals.

The specimens, which are very beautiful, are in the collections of Mr. Gubba and Mr. Sowerby.

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## MONOGRAPH OF THE GENUS

## C I R C E.

*Fam. Veneridæ.*

*Char. Gen.* Testa æquivalva, inæquilatera; umbonibus complanatis, striis vel costellis divaricatim rugatis; lunulâ cordiformi, impressâ, distinctâ; ligamento in aream foveolatam sub marginem dorsalem instructo; cardine lato, dentibus cardinalibus divergentibus, quorum mediano striato, et dente laterali uno antico in utrâque valvâ posito; impressionibus muscularibus duabus, lateralibus; impressione pallii integrâ.



The dentition and general characters of this genus are the same as those of *Cytheræa*; but the peculiar flatness of the umbones, the total want of sinus in the pallial impression, and the diverging tendency in the radiating striæ or ribs, together, seem to separate this group from the rest of the *Veneridæ*. It must be observed, however, that these distinctions are not absolute. The flatness of the umbones is not apparent in *all* the specimens of *all* the species; the diverging striæ or ribs are not visible in the little shell (which, nevertheless, we can find no place for anywhere else) named *C. minima*; and, with regard to the want of sinus in the pallial impression, universal in this genus, the same character is observed in numerous species of *Cytheræa* and *Venus*; and not only so, but the passage from species with a distinct sinus to those without any is so gradual, that it would be impossible to rest a generic division upon that ground alone. The characters must be taken, with all their exceptions, in combination, and these shells, placed apart from the *Cytherææ*, in the same case, appeal to the eye as presenting a very distinguishable group.

SECT. I. *Testa ovalis, radiatim costata, variè fusco-rubescens angulatim picta.*

1. CIRCE PECTINATA (pl. cxxxvii. f. 1, 2, 3). *Venus pectinata*, *Linn. Syst. Nat.* p. 1135.

*Cir. testâ oblongâ, plerumque subcompressâ, posticè subquadratâ; costis nodulosis numerosis, posticè divaricatis, tum gradatim radiantibus, anticè divaricatis; margine dorsali excavato; variat costis magnis.*

The ribs are numerous at the back, very diverging and bifurcated, then at the angle gradually becoming more entire and radiating, and at the front side very diverging again; the dorsal margin is decidedly excavated. Var. fig. 3 has the ribs as coarse as in the next species, but the long ones near the posterior angle do not quite reach the apex.

Indian Ocean; *Lamarck*. Philippines; *Cuming*. Also, Red Sea.

2. CIRCE GIBBIA (pl. cxxxvii. f. 4, 5, 6, 7). *Cytheræa gibba*, *Lamarck*, no. 64. *C. ranella*, *Lamarck*, no. 65, *inclusa*.

*Cir. testâ subovali, altiore, ætate ventricosâ, posticè obliquè quadratâ; areâ distinctâ, subtrigonâ, divaricatim costatâ, tum costis noduliferis duabus aut tribus magnis radiantibus, ad umbones extensis; medio et anticè costis noduliferis, magnis, bifurcatis.*



Shell always deeper from apex to ventral margin than the last species; a distinct posterior area, with beaded ribs very diverging, then two or three broad beaded ribs, with distinct intervals reaching from top to bottom; the rest of the ribs rather smaller, bifurcated, and at the anterior side very diverging.

Philippine Islands; *Cuming*. Also Red Sea.

3. *CIRCE DIVARICATA* (pl. cxxxvii. f. 8, 9), *Gmelin*.

*Cir.* testâ subelongatâ, depressâ, posticè subacuminatâ; costis vix noduliferis, numerosis, posticè obliquis, medio radiatis, prope angulum posticum acutangulatum confluentibus.

Shell like *C. pectinata*, but more oblique and acuminate posteriorly, and the ribs, which are small and comparatively smooth, unite more gradually and obliquely near the posterior angle. The colouring is arranged in broad angular patches rising over each other, and forming grotesque figures. Fig. 9 *a*, the ribs form a series of acute angles at their posterior confluence; Mr. Sowerby's specimen.

Red Sea. Mozambique; *Hanley*. Philippines; *Cuming*.

4. *CIRCE ÆQUIVOCA* (pl. cxxxvii. f. 12, 13, 14, 15), *Chemnitz* (Venus), f. 1980. *Cytheræa testudinalis*, *Lamarck*, no. 67. Var. *C. placunanella*, *Lamarck*, no. 69. *C. cuneata*, *C. mixta*, *Lamarck*?

*Cir.* testâ plerumque altâ, posticè subobliquâ, anticè concentricè subsuleatâ; costis parvulis, numerosis, in medio acutangulatum divaricatis; colore nonnunquam ad margines lineari.

The ribs are generally finer than in the other species, the posterior and anterior ones meeting in very acute angles near the middle of the shell.

Red Sea.

5. *CIRCE DISPAR* (pl. cxxxvii. f. 10, 11), *Chemnitz*, vol. xi. t. 202: f. 1981, 1982. *Cytheræa muscaria*, *Lamarck*, no. 59. *Cyth. pulicaria*, *Lamarck*, no. 60.

*Cir.* testâ rubro-punctatâ et angulatum variegatâ; posticè costis divaricatis, anticè concentricis.

In some of the flatter varieties of the preceding species the anterior rays are so crossed by concentric lines, that it is not easy



to say which predominate; yet the rays are there. In this species there are no traces of them, but in the hinder part of the shell they are strong and oblique, while in the front part there are only concentric ribs. The colouring is arranged in pinkish spots.

Locality uncertain.

6. *CIRCE AUSTRALIS* (pl. cxxxvii. f. 16, 17), *Sowerby, jun.*

Cir. posticè subquadratâ, costulis divergentibus, prope marginem anticum costulis divergentibus brevibus, in medio costis angularibus concentricis; colore pallidè fulvo, lineis divergentibus et maculis fuscis; intùs purpurascens-fusco nebulato, ad marginem nigro-punctato.

Shell with diverging ribs and black lines at the back, concentric ridges in the middle, and diverging short ribs near the anterior margin; colour pale brown inside, clouded with purplish-brown, with black spots at the edges.

North-eastern Australia.

SECT. 2. *Testa rotundata, compressa, prope umbones et ad latera divergenti-costata vel striata, variè fusco angulatim picta, lunulâ distinctâ.*

7. *CIRCE SCRIPTA* (pl. cxxxix. f. 38, 39, 40, 41, 42, 43). *Venus scripta*, *Linn.*, *Syst. Nat.* p. 1135. Var. *C. violacea*, *Schum.*

Cir. testâ compressâ; costis concentricis numerosis; margine dorsali rectiusculo, elevato, subcomplanato; lunulâ distinctâ; costulis divergentibus, prope umbones indistinctis.

Shell rather flat, with the hinder part broad and square; dorsal edge straight and elevated; concentric ribs numerous, particularly at the back; diverging rays near the umbones scarcely perceptible.

Red Sea and Australia.

8. *CIRCE UNDATINA* (pl. cxxxviii. f. 22, 23, 24, 25, 26). *Cytheræa undatina*, *Lamarck*, no. 56.

Cir. testâ *C. scriptæ* simili, sed magis ventricosâ; margine dorsali subarcuato, declivi; costis majoribus, rotundatis.

Shell more ventricose than *C. scripta*, the dorsal margin more rounded and sloped downwards; the ribs generally larger. Variations in colouring the same.

Red Sea and Australia.



9. CIRCE NUMMULINA (pl. cxxxviii. f. 27). Cytheræa nummulina, *Lamarck*, no. 58.

Cir. testâ *C. scriptæ* seu *C. undatinæ* simili, sed costulis divergentibus omnino radiatâ.

This may possibly be a mere variety of the preceding, with the diverging rays spread nearly all over the shell.

Locality unknown. *Mus. Cuming*.

10. CIRCE TUMEFACTA (pl. cxxxviii. f. 28, 29, 30), *Sowerby, jun.*

Cir. testâ subventricosâ, subobliquâ, marginibus medio subrotundatis, prope umbones inflatâ, leviter divaricatum costatâ; margine dorsali declivi, subcomplanato; lunulâ complanatâ; colore albido, plerumque rufo-scripto.

Shell a little more oblique and ventricose than *C. undatina*, with a greater tendency to swell near the umbones, which are slightly ribbed.

Locality unknown.

11. CIRCE PLICATINA (pl. cxxxviii. f. 31, 32). Cytheræa plicatina, *Lamarck*, no. 71.

Cir. testâ subventricosâ, subobliquâ; marginibus subrotundatis; costis concentricis magnis, nitentibus, subcomplanatis; lateribus prope umbones divaricatum costatis.

Shell shaped like *C. tumefacta*, but with the concentric ribs broad, shining, and a little flattened.

Indian Ocean and New Holland.

12. CIRCE RIVULARIS (pl. cxxxix. f. 46, 47, 48), *Menke*, —?

Cir. testâ complanatâ, altâ, supernè subangustatâ, albâ, rubescente, vel pallidè luteâ vel fusco latè radiatâ, intùs roseâ; margine dorsali declivi, crenulato; costis distantibus, irregularibus, interstitiis complanatis.

Shell flat, high, rather narrow towards the umbones, pinkish-white, or yellowish, or pale brown with broad suffused radiating bands of brown, pinkish within, ribs distant, with flattish intervals; lunule and dorsal area flattened, marked and crenulated by the few diverging ribs near the umbones.

New Holland and Rain's Island. *Captain Ince, R.N.*

13. CIRCE RUGIFERA (pl. cxxxix. f. 44, 45). Cytheræa rugosa, *Lamarck*, no. 70. Venus corrugata, *Dillwyn*.

Cir. testâ subcomplanatâ, posticè subangulatâ, politâ, prope



umbones rugulosâ, grisescente-fulvâ, minutè lineis rubris omnino scriptâ; posticè subquadratâ; marginibus dorsalibus declivibus, rubris; costis elevatis, distinctis, posticè subangulatis.

Shell rather flattish, squarish at the back, smooth, strongly roughened near the umbones by the diverging and undulating ribs; of a greyish-white or pale buff, marked with minute angular reddish lines; dorsal margins flattened, red; ribs large, deep cut, with distinct intervals, angular at the back.

New Holland; *Lamarck*. Mr. Gubba, Mr. Hanley, and Mr. Sowerby possess specimens.

14. *CIRCE CROCEA* (pl. xlix. f. 49, 50, 51, 52), *Graz*, in *Analyst*, 1838.

*Cir.* testâ obliquâ, formâ variante, marginibus rotundatis, albidâ, epidermide luteâ indutâ, nonnunquam fusco prope umbones bi-radiatim pictâ, intus luteâ, anticè concentricè sulcatâ, posticè lævigatâ; umbonibus divaricatim rugatis; lunulâ et areâ dorsali sub-purpureis.

Shell oblique, rather rounded, variable in thickness, white, with a light yellowish epidermis, sometimes with two chestnut bands radiating a short distance from the umbones; within, yellowish in the centre; outside, concentrically striated near the umbones, and from the front to the middle of the shell; smooth at the back; dorsal margin full, tinged with dull purple; lunule also tinged with the same colour.

Red Sea. In the cabinets of Mr. Gubba and Mr. Cuming.

15. *CIRCE PLEBEJA* (pl. cxxxviii. f. 33, 34, 35, 36, 37), *Hanley* (*Cytheræa*), *Wood's Suppl.* pl. 15. f. 37. *Cyth. erythræa*, *Jonas, Philippi*, *Abbild.* pl. ix. f. 2.

*Cir.* testâ obliquè rotundatâ, lenticulari, minutè concentricè striatâ, albidâ, fulvo literatâ, vel fuscâ, vel fusco variegatâ; areâ dorsali et lunulâ minutè divaricatim striatis.

Shell rather round, lenticular, concentrically striated, whitish, sprinkled or lettered, or entirely covered with brown; within, pinkish or purplish brown; posterior and anterior dorsal margins short, generally dark brown or spotted, minutely striated with raised diverging lines.

New Batavia. *Philippi*.

16. *CIRCE MINIMA* (pl. cxxxviii. f. 18, 19, 20, 21). *Venus minima*, *Montagu*, *Test. Brit.* p. 121. pl. 3. f. 3; *Turton, Dill-*



*wyn*, &c. *Venus triangularis*, *Mont.*, Test. Brit. p. 577. *Cyprina minima*, *Cyprina triangularis*, *Turton*. *Cytheræa apicalis*, *Philippi*, Moll. Sicil. vol. i. p. 40, pl. 4. f. 5. *Cytheræa Cyrilli*, *Philippi*, Moll. Sicil. vol. ii. p. 32. *Cytheræa minuta*, *Brown*, Illustr. Conch. p. 92. pl. 37. f. 4.

Cir. testâ parvâ, lenticulari vel subtrigonâ, concentricè striatâ, variè pictâ.

This small species varies considerably in form, as well as in the fineness of the concentric striæ or ribs. From the entire absence of diverging lines near the umbones, its place in this genus is doubtful; but from its entire resemblance in all other respects to shells of the second section, we follow King, Hanley, &c., in placing it here.

South of Great Britain, and in the Mediterranean.



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11 CXVII









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CAPIII

















*Half. nat. diam*

*Pl. CXXX.*

























*1/2 nat diam*

*F. C. C. 56*



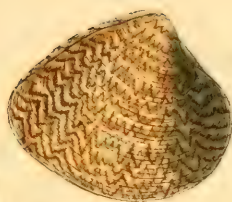








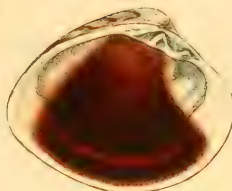
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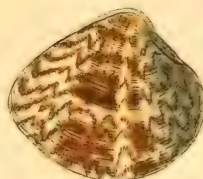
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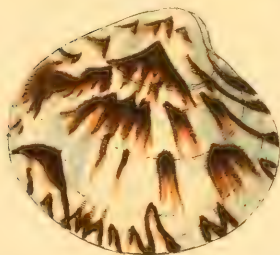
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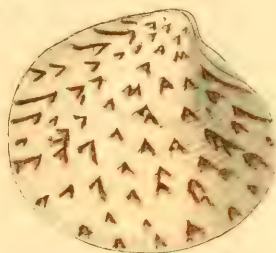
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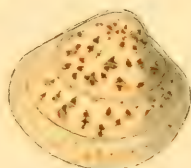
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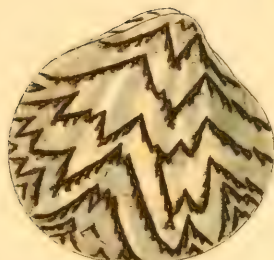
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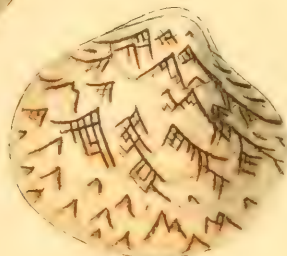
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$\frac{2}{3}$  nat. diam.









*nat. diam.*



18



19



20



21

*2/3 nat. diam.*



22



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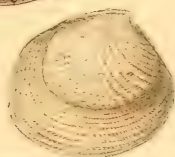
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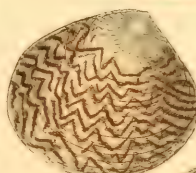
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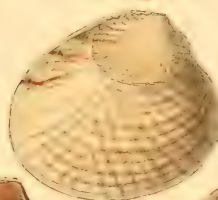
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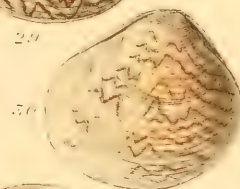
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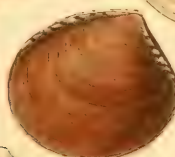
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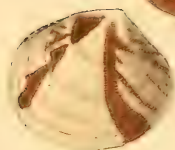
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37







$\frac{2}{3}$  nat. diam.









## MONOGRAPH OF THE GENUS

### ARTEMIS.

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*Fam. Veneridæ.*

---

*Char. Gen.* Testa æquivalvis, inæquilateralis, plus minusve orbicularis, plerumque compressa, concentricè striata aut costellata, anticè prope umbones plerumque lunulata. Cardo fortis, subseptiformis, dentibus tribus aut quatuor divergentibus; ligamento elongato, partim interno. Impressiones musculares pyriformes; impressio pallii sinu profundo acutè trigono.

The shells of this genus are easily distinguishable from *Cytherea*, not only by their general form, which is lenticular, but by the deep angular sinus in the impression of the mantle, indicating a peculiarity in the animal. Nearly all the shells are of a white or light colour, and have concentric ridges or striæ. Three species are found in Europe; a few in America, Australia, and North Africa; and the greater number in Japan, China, the Philippines, and other localities in the Eastern Seas.

SECT. 1. *Dorsal margin simple; concentric ridges flat.*

1. ARTEMIS CONCENTRICA (pl. cxi. f. 1), *Gmelin* (Venus), Syst. Nat. p. 3286.

Art. testâ subrotundatâ, latiore quam altâ, albâ, epidermide pallidè stramineâ, concentricè sulcatâ, sulcis continuis; margine dorsali elevato, simplici; lunulâ profundè excavatâ.

Rounded, but wider than high; white, with a pale straw-coloured epidermis; concentrically and continuously grooved, the interspaces being narrow and flat; no ligamental area; lunule deeply impressed.

Porto Portrero, Central America. *Cuming*.

2. ARTEMIS DISTANS (pl. cxi. f. 3), — ?

Art. testâ crassâ, ventricosâ, posticè expansâ, albâ, epidermide



pallidè stramineâ indutâ, concentricè distanter sulcatâ, sulcis ad latera profundis paucioribus; margine dorsali elevato; latere antico parvo; lunulâ excavatâ, impressâ.

More ventricose than *A. concentrica*, with the anterior sides small, and the posterior side large; the sulci very distant in the middle, and very deeply cut at the sides.

Locality unknown. There are several specimens in Mr. Cuming's collection.

3. ARTEMIS PONDEROSA (pl. cxl. f. 2), *Gray*, Analyst, 1838, vol. viii. p. 309. *Cytheræa gigantea*, *Sowerby*, Philippi, Abbild. pl. vii. f. 1.

Art. testâ subrotundatâ, crassâ, albâ, epidermide pallidâ nitente indutâ, irregulariter concentricè sulcatâ, sulcis in medio evanidis; ligamento elongato; margine cardinali lato, crasso; margine dorsali subelevato, simplici; lunulâ planatâ, profundè impressâ.

More orbicular than *A. concentrica*, with the sulci worn out, as it were, in the middle and towards the ventral margin.

Gulf of California; sandy mud at low water.

4. ARTEMIS NITENS (pl. cxl. f. 11), *Reeve*, Conch. Icon. *Artemis*, pl. iii. f. 12. *A. concentrica*, var. ? *Ed.*

Art. testâ subrotundatâ, paululùm latiore quam altâ, albâ, epidermide tenui nitente indutâ, regulariter concentricè sulcatâ; areâ ligamenti nullâ; margine dorsali subdeclivi.

Smaller, when full-grown, and rounder than *A. gigantea*, with the sulci smaller, more regular, and more continuous. It is not easily distinguishable from *A. concentrica*, but its dorsal edge is not quite so much raised.

Locality unknown. In Mr. Cuming's collection.

5. ARTEMIS INCISA (pl. cxl. f. 7), *Reeve*, Conch. Icon. pl. iii. f. 16.

Art. testâ *A. Patagonicæ* simili, sed magis rotundatâ, prope umbones magis compressâ.

If there be a real difference between this species and *A. Patagonica*, it will be found in the greater roundness of outline and the want of fullness and prominence of the shell at and about the beaks.

North Australia. *Jukes*.



6. ARTEMIS PATAGONICA (pl. cxl. f. 8), *Philippi* (Cytheræa), Abbild. pl. ii. f. 1.

Art. testâ subquadratum rotundatâ, subcompressâ, albidâ, epidermide tenui indutâ, concentricè sulcatâ; margine dorsali simplici, parum arcuatâ; umbonibus amplioribus, lateralibus.

Not so wide in proportion to its height as *A. ponderosa* and *A. concentrica*, but of a rather more obliquely square form, with the umboes very lateral and full.

Patagonia. *Philippi*.

7. ARTEMIS DUNKERI (pl. cxl. f. 5), *Philippi* (Cytheræa) Abbild. *Cyth.* pl. ii. f. 5.

Art. testâ rotundatâ, vix latiore quam altâ, albâ, epidermide pallidâ indutâ, concentricè sulcatâ, sulcis continuis, in medio subdistantibus; margine dorsali declivi; lunulâ excavatâ.

Higher than *A. concentrica*, with the dorsal margin more sloping, and the lunule not so deeply excavated.

St. Elena and Panamá, Central America; sandy mud at low water. *Cuming*.

8. ARTEMIS SIMPLEX (pl. cxl. f. 6), *Hanley*, Cat. Recent Shells, pl. xv. f. 41.

Art. testâ obliquè altiore quam latâ, albâ, epidermide tenui indutâ, concentricè sulcatâ, sulcis numerosis, æqualibus, continuis; margine dorsali obliquo; lunulâ impressâ, vix excavatâ.

More obliquely elevated at the umboes (which are lateral), than any of the group beginning with *A. concentrica*, with the dorsal margin more sloping, and the grooves more numerous and regular than *A. Dunkeri*.

Locality unknown.

9. ARTEMIS CONCINNA (pl. cxl. f. 4), *Sowerby, jun.*

Art. testâ ovali, albâ, concentricè tenuè striatâ, latiore quam altâ; epidermide tenui, nitente.

More oval and with finer sulci than *A. simplex* and similar species.

Locality unknown.

10. ARTEMIS DISCUS (pl. cxl. f. 9), *Reeve*, Conch. Icon. pl. ii. f. 9.

Art. testâ compressâ, subquadratâ, subtiliter striatâ, pallidè fulvâ, prope marginem pallidissimè griscescente, omnino tenuè in-



ciso-striatâ; sulcis intermediis versus latera terminatis; margine dorsali simplici, subarcuato, margine postico rectiusculo; lunulâ breviusculâ; epidermide corneâ, fulvâ.

Of a rather square form, very compressed, and with very finely cut striæ; distinguishable at sight from the others of the group, by its squareness and flatness.

America.

11. ARTEMIS PLANA (pl. cxl. f. 10), *Reeve*, *Conch. Icon. Artemis*, pl. iii. f. 18.

Art. testâ compressâ, subquadratâ, albâ, epidermide indutâ, concentricè tenuissimè striatâ, striis in medio obsoletis; areâ ligamenti simplici; lunulâ suboblongâ; umbonibus acutis.

Like *A. discus*, flat and square, but with the striæ so fine as to be scarcely perceptible and nearly obsolete in the middle.

China.

SECT. 2. *Dorsal margins simple; concentric ridges or striæ raised.*

12. ARTEMIS EXOLETA (pl. cxli. f. 12, 43, 14), *Linnaeus* (*Venus*), *Syst. Nat.* 12th edit. p. 1134. *Cytheræa exoleta*, *Lamarck*. *Pectunculus capillaceus*, *Da Costa*, *Brit. Conch.* p. 187. pl. xii. f. 5. *Cytheræa sinuata*, *Turton*, *Dith. Brit. pl.* viii. f. 7 (figura solùm).

Art. testâ suborbiculari, compressâ, ætate ad latera subquadratâ, pallidè fulvâ, radiis et maculis angulatis rubescentibus nonnunquam variè pictâ, concentricè elevato-striatâ, striis subrugosis subæqualibus; margine dorsali simplici; areâ ligamenti indistinctâ vel nullâ; lunulâ convexiusculâ, impressâ; margine antico prope lunulam elevato.

The shape is rather round, but when full-grown tending at the sides to square; the striæ elevated, rather rough, but regular; the dorsal edge simple, and on the front side raised towards the lunule. Some specimens are prettily variegated with brown markings on broad pinkish rays, and some are beautifully tinted with rose-colour within.

British and other European Seas.

13. ARTEMIS LINCTA (pl. cxli. f. 16), *Pulteney* (*Venus*), *Hutchins. Dorset*, p. 34. *Venus sinuata*, *Turton*, *Conch. Dith.* p. 242. *Cytheræa lincta*, *Lamarck*.

Art. testâ pallidè fulvâ, subnitente, ventricosâ, subrotundatâ;



marginibus dorsalibus subdeclivibus, simplicibus; arcâ ligamenti nullâ; lineis elevatis concentricis ad latera paululùm elevatis, sublaminatis, creberrimis; lunulâ impressâ.

The dorsal edges are more sloping, the shell more ventricose, the concentric ridges more nearly laminated at the sides, and more smooth near the umboes, than in *A. exoleta*.

Great Britain, and Seas of Southern Europe.

14. ARTEMIS SCULPTA (pl. cxli. f. 15), *Reeve*, Conch. Icon. *Artemis*, pl. ix. f. 52.

Art. testâ orbiculari-subquadratâ, paululùm latiore quam altâ, tumidiusculâ, posticè expansâ, albidâ, pallidè rubescente, striis impressis radiantibus costellas concentricas decussantibus; costellis concentricis acutiusculis, crebris, ad latera (anticè præcipuè) laminatis, undatis; margine dorsali elevato, simplici; lunulâ oblongâ, amplâ, lamellatim rugosâ.

Rather more square and ventricose than *A. exoleta*, and differing from any of its varieties in being decussated at the sides by impressed radiating striæ crossing the concentric riblets, which are in that part laminated and undulated.

Locality unknown. In Mr. Metcalfe's cabinet.

15. ARTEMIS AMPHIDESMOIDES (pl. cxli. f. 17, 18, 19), *Reeve*, Conch. Icon. *Artemis*, pl. viii. f. 48. *A. radiata*, *Reeve*, ib. pl. vii. f. 37 inclusa.

Art. testâ subquadratum orbiculari, posticè magnâ, subflexuosâ; margine dorsali elevato, simplici, concentricè rugoso-costellato; costellis elevatis numerosis, subæqualibus; pallidè rufescente, fusco-radiatâ, prope umbones nonnunquam purpurascente; lunulâ subrotundatâ, profundè impressâ.

I cannot separate the variety named *A. radiata* from this, on account of the accidental contortion of some specimens; both are remarkable for the expansion of the hinder part of the shell, and the character of the ribs, which differ from those of *A. exoleta* in being more distinct and raised.

Mouth of the river Gambia, Western Africa; also island of Burias, Philippines; in coarse sand, at a depth of six fathoms. *Cuming*.

16. ARTEMIS TRIGONA (pl. cxli. f. 29), *Reeve*, Conch. Icon. *Artemis*, sp. 42. *Cytheræa trigona* (by error), *Thes. Conch.* part 12.



Art. testâ subtrigonă, lată, crassiusculă, albă, ferrugineo-tinctă, concentricè irregulariter striată; arcă ligamenti simplici; lunulă amplissimă, vix distinctă.

I think it is erroneous to place this species in the genus *Cytherea*, for, notwithstanding its trigonal form, it has the essential characters of *Artemis*. It is ribbed, of a white colour, tinged with rusty-brown. The lunule is very broad and scarcely marked, and the area is simple.

Red Sea.

17. ARTEMIS SUBTRIGONA (pl. cxli. f. 21), *Sowerby, jun.*

Art. testâ albidă, tenui, subtrigonă, tenuè et confertim elevatim striată; arcă ligamenti paululùm depressă; lunulă magnă, lævigată, vix distinctă.

Rather white, thin, of a subtrigonal form, with very fine, close, concentric riblets. The lunule is large, circumscribed by a faintly impressed line. The ligamental area not very distinctly depressed.

Locality unknown. In Mr. Sowerby's collection.

18. ARTEMIS ISOCARDIA (pl. cxli. f. 29, 30), *Dunker, Phil. Abbild. Cyth.* p. 36. pl. viii. f. 5.

Art. testâ glaucă, violaceo-tinctă, altă, cordată, gibbosă, concentricè minutè et acutè striată; arcă ligamenti paululùm excavată; lunulă cordată, subimpressă. Variat fusco-maculată, margines et lunulă violaceis, intūs purpureă.

Heart-shaped, narrow, and ventricose; greyish-buff, tinged with purple; finely, evenly, and sharply striated; lunule defined by a slightly depressed line; ligamental area rather excavated.

Guinea.

19. ARTEMIS NANUS (pl. cxli. f. 31), *Reeve, Conch. Icon. Artemis*, pl. x. f. 57.

Art. testâ sordidè albă, subcordată, subgibbosă, concentricè costată, costis acutis, validis; arcă ligamenti simplici; lunulă amplă, vix impressă.

A small whitish shell, with the ridges very large in proportion to its size, and the lunule occupying a large part of the anterior side. There is no distinctly marked ligamental area.

Locality unknown. In Mr. Cuming's cabinet.



SECT. 3. *Dorsal edge simple ; lunule expanded and indistinct.*

20. ARTEMIS CHINENSIS (pl. cxli. f. 23, 24), *Chemnitz*, (Venus), pl. 171. f. 1663. *Cyprina tenuistria*, *Lamarck*.

Art. testâ obliquè subquadratâ, inflatâ, concentricè irregulariter striatâ, striis elevatiusculis, radiatim tenuistriatâ ; umbonibus lateralibus ; margine dorsali elevato, simplici ; lunulâ nullâ ; margine ventrali et laterali intùs crenatis ; fulvâ, nonnunquam purpureo-fasciatâ.

This species has no distinctly-marked lunule. It is rather square and inflated, of a fawn-colour, beautifully banded with purple ; the inner edge crenated.

China ; Korea.

21. ARTEMIS ORIENTALIS (pl. cxliv. f. 79), *Sowerby, jun.*

Art. testâ rotundatâ, ventricosâ, concentricè et radiatim ad latera vix striatâ, pallidè aurantiâ, propè marginem ventralem rubescente ; intùs margine crenato ; lunulâ nullâ.

A fine specimen of this rounded, ventricose shell from Japan, has recently come into Mr. Cuming's possession. It is much more round, smooth, and solid than *A. Chinensis*.

Japan.

22. ARTEMIS INFLATA (pl. cxli. f. 25), *Sowerby, jun.*

Art. testâ subrotundatâ, albâ, tenuissimè concentricè striatâ ; lunulâ nullâ, intùs fulvâ ; margine lævi.

Like *A. Chinensis*, but rounder and without the crenulations on the inner edge.

Locality unknown.

23. ARTEMIS TENUIS (pl. cxli. f. 22), *Sowerby, jun.*, *Conch. Icon. Artemis*, pl. ix. f. 53.

Art. testâ inflatâ, tenui, albâ, obliquè subquadratâ, vix striatâ ; lunulâ nullâ ; margine dorsali simplici, elevatâ ; intùs margine lævi.

In form like *A. Chinensis*, but smooth, and without crenations on the inner edge. It is not so oval or sloping at the dorsal edge as *A. inflata*.

Locality unknown.

24. ARTEMIS SUBQUADRATA (pl. cxli. f. 27), *Hanley*, *Wood's Ind. Test. Suppl.* pl. xv. f. 39.

Art. testâ subquadratâ, tenui, inflatâ, stramineâ, post medium



subangulatim inflatâ, concentricè minutissimè striatâ; areâ ligamenti simplici; margine dorsali elevato; lunulâ nullâ; margine antico brevi.

Large when full-grown, thin and inflated, rather angular towards the back of the shell. The anterior side is short, and there is no lunule.

St. Elena, West Columbia, in sandy mud at low water; and Lobos Island, Peru, in sandy mud, from six to seven fathoms. *Cuming*.

25. ARTEMIS MACILENTA (pl. cxli. f. 32), *Reeve*, *Conch. Icon. Artemis*, pl. ix. f. 51.

Art. testâ suborbiculari, obliquâ, albâ, tenui, compressâ, lævigatâ; lunulâ elongatâ, indistinctâ.

Very thin, rather round, compressed, white, with the lunule scarcely defined. This may be the young of *A. subquadrata*.

#### SECT. 4. *Dorsal margin depressed.*

26. ARTEMIS PENICILLATA (pl. cxli. f. 28), *Reeve*, *Conch. Icon. Artemis*, pl. vi. f. 32.

Art. testâ subquadratâ, compressâ, albâ vel fulvâ, rufescente, lineis radiantibus subimpressis fuscescentibus pallidè notatâ, concentricè striatâ; striis elevatiusculis, ad latera validioribus; margine dorsali postico rectiusculo; areâ ligamenti simplicè depressâ, lineari; margine antico declivi; lunulâ sublanceolatâ, leviter impressâ.

Rather square at the back, more round and sloping in front, compressed, white or brownish, with impressed irregularly diverging and radiating lines of colour. The ligamental area is represented by a simple linear depression, and the lunule is rather long and narrow.

Locality unknown. In Mr. Cuming's collection.

27. ARTEMIS ANGULOSA (pl. cxli. f. 26), *Philippi*, *Abbild. Cytheræa*, pl. v. f. 1. *A. longilunata*, *Reeve*, *Conch. Icon.* pl. x. f. 61. *A. penicillata*, var., *Reeve*, *Conch. Icon.* pl. vi. f. 36.

Art. testâ *A. penicillata* simili, sed magis compressâ et quadratim expansâ; lunulâ peculiariter elongatâ.

Flatter and broader than *A. penicillata*, with the lunule more elongated.

In Mr. Hanley's collection.



28. ARTEMIS LUNARIS (pl. cxlii. f. 33), *Lamarch*, Anim. sans vert. (*Cytheræa*, no. 46). *An Venus lupinus, Poli?*

Art. testâ obliquè elevatâ, solidâ, compressâ, prope umbones politâ, vix ad margines tenuissimè striatâ; areâ ligamenti depressâ, indistinctâ; lunulâ parvâ, impressâ; umbonibus obliquè productis.

The elevation of the upper part towards the anterior side gives a peculiar obliquity to this shell, which is nearly white, flat, and smooth, excepting at the edges, where very fine striæ are just visible. The lunule is small; the ligamental area formed by a slight depression of the dorsal margin, which is much sloped.

Gulf of Tarentum.

29. ARTEMIS FERRUGINEA (pl. cxlii. f. 34), *Reeve*, Conch. Icon. *Artemis*, pl. x. f. 56.

Art. testâ carneo-albidâ, prope umbones subferrugineâ, solidâ, suborbiculari, omnino regulariter concentricè minutè striatâ; areâ ligamenti depressâ; lunulâ parvâ, profundè impressâ.

Obliquely Tellinæform, with sloping edges, something like *A. lunaris*, but wider in proportion, with the hinder part produced.

Locality unknown. In Mr. Hanley's collection.

30. ARTEMIS MODESTA (pl. cxlii. f. 37), *Reeve*, Conch. Icon. *Artemis*, pl. ix. f. 54.

Art. testâ suborbiculari, compressâ, supernè obliquè subelevatâ, sordidè albâ, nitente, striis radiantibus obscurissimis notatâ, concentricè minutè impresso-striatâ; areâ ligamenti angustatâ, excavatâ; lunulâ subobliquâ, impressâ.

Not so oblique nor so much produced at the upper part as *A. lunaris*, and having the ligamental area more excavated.

Locality unknown. In Mr. Cuming's collection.

31. ARTEMIS HEPATICA (pl. cxlii. f. 35, 36), *Philippi*, Abbild. *Cytheræa*, pl. ii. f. 3.

Art. testâ obliquè subquadratâ, subcompressâ, cærulescente vel fulvâ, prope umbones rufescente et purpureo-maculatâ, tenuissimè striatâ; lunulâ vix impressâ; areâ dorsali parùm planatâ.

Not so inflated as *A. Chinensis*, and more finely striated, with a distinct although not prominent lunule; colour of a dull ashy-grey, darker near, and orange at, the umboes. The variety



is of a light orange-colour, with large cærulean spots near the umboes.

Locality unknown. In Mr. Cuming's cabinet.

32. *ARTEMIS CÆRULEA* (pl. cxlii. f. 43, 44), *Reeve*, *Conch. Icon. Artemis*, pl. iv. f. 25.

Art. testâ albâ vel pallidè fulvâ, ad umbones plus minusve fulvo et cæruleo nebulatâ, ætate crassâ, ventricosâ, rotundatâ, posticè subangulatâ, minutè concentricè elevato-striatâ; lunulâ subovali, lineâ impressâ circumscriptâ; areâ dorsali sublatè depressâ; umbonibus lævigatis.

When full-grown this shell is thick and full, with small, even, raised striæ, except at the umboes, which are smaller, and the ligamental area formed by the simple depression of the dorsal edge. The colour is white or pale whitish-brown, with a tinge of orange clouded with dull blue about the umboes and upper margins.

Rain's Island, Torres Straits. *Captain Ince*.

33. *ARTEMIS LUCINOIDES* (pl. cxlii. f. 39), *Reeve*, *Conch. Icon. Artemis*, pl. viii. f. 45.

Art. testâ albidâ, crassâ, subangulatim rotundatâ, omnino minutè striatâ; areâ ligamenti angustatâ, excavatâ; lunulâ impressâ.

Resembling *A. hepatica*, but with no tendency to the purple patches of colour, and perhaps more coarsely striated.

Guinea. *Sams*.

34. *ARTEMIS SOLIDULA* (pl. cxlii. f. 38), *Sowerby, jun.*

Art. testâ albâ, solidâ, concentricè striatâ; areâ dorsali depressâ, subexcavatâ, declivi; lunulâ distinctâ, convexâ.

Resembling *A. cærulea*, but much more sloping and less angular at the dorsal edge.

Locality unknown. In Mr. Cuming's collection.

35. *ARTEMIS RUBICUNDA* (pl. cxlii. f. 40, 41, copied), *Philippi*, *Abbild. Cyth.* t. vi. f. 5.

Art. "testâ parvâ, orbiculari, aurantio-rubente tenuissimè striatâ, fere lævi; areâ distinctâ nullâ; lunulâ convexâ, cordatâ, lineolâ impressâ parùm conspicuâ ægrè circumscriptâ."

A pretty little red shell, from the Red Sea; it must very nearly resemble the two or three preceding.



36. *ARTEMIS SERICEA* (pl. cxlii. f. 42), *Reeve*, *Conch. Icon. Artemis*, pl. viii. f. 36.

Art. testâ subovali, tenui, latiore quam altâ, concentricè tenuissimè striatâ, striis vix ad latera elevatis; areâ ligamenti elongatâ, paululùm depressâ; lunulâ ovali, impressâ; colore prope umbones fulvo, ad margines grisescente.

A rather oval shell, of a delicate fawn-colour at the umboes and towards the middle, but becoming greyish towards the margin; the striæ are so close and fine as to give a silky appearance to the surface, and are scarcely more raised close to the hinder edge, which is slightly angulated. This shell is rather more regularly oval, with the striæ more equally raised throughout, than in the following species.

Japan, *Dr. Siebold*; and San Nicolas, island of Zebu, Philippines, *Cuming*.

37. *ARTEMIS COMPTA* (pl. cxlii. f. 45), *Loven*, *Index Mollusc. Scandinaviæ*, p. 39. *Artemis glauca*, *Reeve*, *Conch. Icon.* pl. x. f. 58.

Art. testâ subovali, latiore quam altâ, fulvâ, grisescente, concentricè tenuissimè striatâ, striis ad latera creberrimè et lamina-tim elevatis; areâ ligamenti depressâ; lunulâ impressâ.

Of an oval form, differing from *A. sericea* in the lateral elevation of the striæ.

Philippines.

SECT. 5. *Dorsal margin with a defined area; generally excavated.*

8. *ARTEMIS ORBIGNII* (pl. cxlii. f. 54), *Dunker*, *Phil. Ab-bild. Cytheræa*, pl. vi. f. 3.

Art. testâ subrotundatâ, solidâ, subcompressâ, albidâ, umbones versus lividâ, concentricè striatâ, striis subdistantibus, elevatiusculis, regularibus, ad latera paucioribus, elevatis; areâ ligamenti excavatâ, lanceolatâ; lunulâ subimpressâ.

Rather round, flattish, with raised, distant, concentric lines, some of which converge near the sides; the colour tends to livid or grey towards the umboes. The description by Philippi almost identifies this with *A. torrida* of *Reeve*.

Guinea, *Sams*. Mouth of the river Gaboon, Western Africa.



39. ARTEMIS TORRIDA (pl. cxlii. f. 46), *Reeve*, *Conch. Icon. Artemis*, pl. x. f. 60.

Art. testâ *A. Orbignii* simili, sed latiore; areâ ligamenti haud tantum excavatâ, costellis ad latera vix elevatis.

It is not unlike *A. Orbignii*, but it is not so high and the riblets not so much elevated and corrugated at the sides.

Mouth of the river Gaboon, Western Africa.

40. ARTEMIS AFRICANA (pl. cxlii. f. 48), *Gray*, *Analyst*, 1838. "Dosin," *Adanson*?

Art. testâ pallidè fulvâ, crassâ, obliquè elevatâ, concentricè concinnè subundulatim sulcatâ; sulcis ad latera elevatis, convergentibus, posticè ad marginem areæ ligamenti angulatim productis; areâ ligamenti planulatâ, latè excavatâ; lunulâ distinctâ, profundâ.

Nearly white, sometimes tinged with delicate pink, obliquely elevated, with very sloping dorsal margins; the ligamental area excavated and flattened, and defined by the acutely produced ridges, which are elevated and convergent at the sides, and smooth and shining at the central disc.

Senegal.

41. ARTEMIS GRUNERI (pl. cxlii. f. 47), *Philippi*, *Abbild. Cyth.* pl. viii. f. 2.

Art. testâ pallidè fulvâ, crassâ, subelevatâ, concentricè validè sulcatâ; sulcis ad latera elevatis, convergentibus, posticè ad marginem areæ ligamenti angulatim productis; areâ ligamenti planulatâ, latè excavatâ; lunulâ distinctâ, validè impressâ.

Broader and coarser than *A. Africana*, and not so obliquely elevated towards the umboes.

China.

42. ARTEMIS ADANSONI (pl. cxlii. f. 52), *Philippi*, *Abbild. Cyth.* t. ii. f. 2. "Dosin," *Adanson*?

Art. testâ albidâ, versus umbones subroseâ, suborbiculari, subcompressâ, concentricè minutè striatâ, striis ad latus posticum angulatim elevatis, utrinque undulatim convergentibus; margine dorsali subelevato; areâ ligamenti lævi, lanceolatâ, subexcavatâ; lunulâ parvâ, impressâ.

Rounder, flatter, and smoother than *A. Gruneri* or *A. Africana*; ligamental area not so much excavated nor so distinctly defined.

Senegal.



43. ARTEMIS CALCULUS (pl. cxlii. f. 53), *Reeve*, Conch. Icon. Art. pl. viii. f. 47.

Art. testâ albido-fuscescente, tenui, compressâ, concentricè tenuissimè striatâ; striis ad latera elevatiuseculis, convergentibus; areâ ligamenti subexcavatâ.

Thin, whitish or light brown, very minutely striated, the striae elevated and converging at the sides; ligamental area not very distinctly marked by the edges of the concentric ridges.

Catannan, island of Luzon, Philippines; in fine sand at low water. *Cuming*.

44. ARTEMIS BISCOCTA (pl. cxlii. f. 50), *Reeve*, Conch. Icon. Art. pl. ix. f. 55.

Art. testâ pallidè fulvâ, suborbiculari, concentricè striatâ, striis asperis ad latera elevatiuseculis convergentibus; areâ ligamenti lanceolatè excavatâ; lunulâ impressâ.

Differing from the rest of the group in the sharp and rough character of the raised striae, which prevents the silkiness of appearance near the umboes, which may be observed in *A. Africana*, etc.

Japan. *Siebold*.

45. ARTEMIS FIBULA (pl. cxlii. f. 49), *Reeve*, Conch. Icon. Art. pl. v. f. 26.

Art. testâ lutescente-albâ, altâ, subcompressâ, ad latera subangustatâ, concentricè creberrimè striatâ, striis ad latera vix elevatis, convergentibus; margine laterali antico elevato; lunulâ profundissimè impressâ; areâ ligamenti acutè excavatâ, lævigatâ.

"Principally remarkable for the depressed growth of the lunule," otherwise resembling *A. biscocta*.

Mouth of the Gambia, Western Africa.

46. ARTEMIS CRETACEA (pl. cxlii. f. 51), *Reeve*, Conch. Icon. Art. pl. vi. f. 35.

Art. testâ *A. biscoctæ* simili, sed striis concentricis validè tenuioribus.

There is a chalky appearance arising from the closely laminated striae of this shell, which distinguishes it from *A. biscocta* and others of the group.

Manilla, island of Luzon, Philippines. *Cuming*.



47. ARTEMIS LIVIDA (pl. cxlii. f. 55, copied), *Philippi*, Abild. *Cyth.* pl. v. f. 4. *A. Orbignii*, var.? *Ed.*

Art. testâ *A. Orbignii* simili, sed magis compressâ, posticè angulatâ, striis magis confertis, ad latera angulatim terminatis.

It is not easy either to identify this species, or to distinguish from it *A. aspera*, Reeve, excepting in colour. It is like *A. Orbignii* in some respects, but is flatter, more angular, and with the striæ more numerous and raised at the sides.

Locality unknown.

48. ARTEMIS ASPERA (pl. cxliii. f. 56), *Reeve*, *Conch. Icon. Art.* pl. ix. f. 49.

Art. testâ suborbiculari, tumidâ, pallidè fulvâ, concentricè striatâ, striis elevatis creberrimis, acutis, ad latera paucis elevatiusculis; areâ ligamenti excavatâ; lunulâ parvâ; umbonibus prominulis.

Of a dull whitish-brown colour, very finely and sharply striated, with the striæ slightly elevated at the sides, particularly at the edge of the ligamental area, which is peculiarly canaliculated, with the inner edges slightly raised; the umboes are produced.

Manilla; in sandy mud at low water. *Cuming.*

49. ARTEMIS CANALICULATA (pl. cxliii. f. 58), *Sowerby, jun.*

Art. testâ parvâ, tumidâ, sordidè albâ, minutissimè striatâ, striis ad latera elevatiusculis; umbonibus prominentibus, acutis; areâ ligamenti duplicatâ.

Striated like *A. bisecta* and *A. aspera*, and remarkable for the canaliculated appearance given to the ligamental area by the elevation of the dorsal edges.

Manilla, island of Luzon. *Cuming.*

50. ARTEMIS SCABRIUSCULA (pl. cxliii. f. 59), *Philippi*, Abild. *Cyth.* pl. v. f. 2.

Art. testâ suborbiculari, latiore quam altâ, albidâ, posticè subangulatâ, tenuissimè striatâ, striis ad latera acutè laminatis; areâ ligamenti latâ, excavatâ, ad marginem serratâ; lunulâ impressâ.

Rather transversely tending to oval, with numerous, close, very fine ridges, which, at the sides, are produced into laminæ ending in points, so as to serrate the margin of the ligamental area, which is broad and excavated.

Locality unknown.



51. ARTEMIS JAPONICA (pl. cxliii. f. 60), *Reeve*, Conch. Icon. Art. pl. iii. f. 17.

Art. testâ suborbiculari, paululùm latiore quam altâ, albidâ, subcompressâ, posticè supernè subangulatâ, concentricè minutè costellatâ, costellis ad latera paucioribus et elevatim laminatis.

The sculpture is less fine and the dorsal part of the shell more elevated and angular than in *A. scabriuscula*; at the hinder side the laminae suddenly become few and broadly laminated.

Japan. *Dr. Siebold*.

52. ARTEMIS SUBROSEA (pl. cxliii. f. 61), *Gray*, Yates' New Zealand, p. 309.

Art. testâ pallidè rosaceo-fulvâ, latiore quam altâ, tenui, convexâ, concentricè creberrimè elevatim striatâ, striis ad latera laminatis minutissimis; areâ ligamenti subexcavatâ, striatâ; lunulâ ovali, impressâ.

Of a rather oval form, with very fine striae, which are so close at the umboes as to give a glossy appearance to the surface. This species differs from *A. Japonica* and *A. scabriuscula* in having the striae as close at the sides as at the middle of the shell.

New Zealand.

53. ARTEMIS SIEBOLDII (pl. cxliii. f. 57), *Reeve*, Conch. Icon. Art. pl. vii. f. 39.

Art. testâ fuscâ, rotundatâ, convexâ, concentricè tenuissimè liratâ, liris anticè laminatis, posticè paucioribus, elevatiusculis, corrugatis; lunulâ impressâ; areâ ligamenti latiusculâ, vix excavatâ, squamarum grandium serie marginatâ.

Remarkable for the corrugated character of the ridges on a distinct portion of the posterior side, and for the row of large laminated scales, into which some of the ridges are expanded at the edge of the ligamental area.

Japan. *Dr. Siebold*. In Mr. Cuming's collection.

54. ARTEMIS CORRUGATA (pl. cxliii. f. 63), *Reeve*, Conch. Icon. Art. pl. iv. f. 24.

Art. testâ suborbiculari, paululùm latiore quam altâ, tenui, convexâ, sordidè albidâ, concentricè striatâ, striis in medio tenuissimis, subobsoletis, ad latera (posticè præcipuè) elevatis, crassiusculis, corrugatis et convergentibus; striis radiantibus obsoletis; areâ ligamenti laminatâ, vix impressâ; lunulâ suboblongâ, impressâ.



Similar in form to *A. Japonica*, etc., but very remarkable for the coarsely wrinkled character of the elevated riblets at the posterior side, compared to the almost obsolete and fine striæ in the middle.

Locality unknown. In Mr. Cuming's collection.

55. *ARTEMIS EXASPERATA* (pl. cxliii. f. 62), *Philippi*, Abbild. *Cyth.* pl. viii. f. 4.

Art. testâ subquadrâtâ, albâ, compressâ, concentricè creberrimè costellâtâ, costellis in medio lævigatis, prope marginem et ad latera subcorrugatis, ad latera lamellatis et interruptim elevatis, ad marginem dorsalem in nodulos productis; areâ ligamenti subexcavatâ, striatâ; lunulâ profundè impressâ.

White, a little squared at the sides; very finely ribbed, except at the sides, where the ribs are few, coarse, and wrinkled, a few of them being raised into nodules circumscribing the ligamental area.

Bay of Manilla, island of Luzon, Philippines; in sandy mud. *Cuming*.

56. *ARTEMIS BILUNATA* (pl. cxliii. f. 66), *Gray*, Analyst, 1838, part 24, p. 309.

Art. testâ albidâ, orbiculari-subtrigonâ, versus umbones elevâtâ, pallidè radiis roseis interruptis pictâ, concentricè tenuissimè striatâ, lineis ad latera in squamas angulatas productis, posticè ad marginem, anticè post aream latè distinctam et lævigatam terminatis; lunulâ ovali, lineâ profundâ circumscriptâ; areâ ligamenti angustâtâ, vix depressâ; umbonibus parvis, elevatis.

The striæ are very fine in the middle of the shell, but at the sides some of them are produced into angular laminæ; at the front side these laminated points terminate in a radiating series before reaching the margin, so as to leave a broad, distinct, smooth area, which is separated from the true lunule by a deep groove. The shell is beautifully painted by radiating interrupted rays of pale pink.

Japan. *Dr. Siebold*.

57. *ARTEMIS CUMINGII* (pl. cxliii. f. 64), *Reeve*, Conch. Icon. Art. pl. v. f. 3.

Art. testâ subalbidâ, fusco radiatâ et tinctâ, subcompressâ, ad latera subangulatâ, tenuissimè striatâ, ad marginem dorsalem et



lunulæ anticæ striis paucis, elevato-laminatis, in angulos parvos productis; umbonibus parvis, arcuatis.

In general form this resembles *A. bilunulata*, but it has not the anterior area or second lunule which characterizes that species.

San Nicolas, island of Zebu, Philippines; in sandy mud. *Cuming*.

58. ARTEMIS LAMELLATA (pl. cxliii. f. 65), *Reeve*, *Conch. Icon. Art.* pl. iii. f. 13.

Art. testâ subovali, subcompressâ, albâ, prope umbones minutè striatâ, deinde lamellatâ; lamellis duplicatis, ad latera paucioribus, subelevatis; areâ ligamenti subexcavatâ, lamellatâ; lunulâ lineâ profundâ circumscriptâ.

Remarkable for the duplicate character of the concentric laminæ.

North Australia. *Jukes*.

59. ARTEMIS DUPLICATA (pl. cxliii. f. 67), *Reeve*, *Conch. Icon. Art.* pl. viii. f. 46.

Art. testâ tenui, albidâ, subcompressâ, subovali, concentricè minutè laminatâ; laminis posticè duplicatis, ad latera productis; areâ ligamenti ad marginem profundè excavatâ; lunulâ lineâ distinctâ.

Like *A. lamellata* in having the ribs duplicate, but with the whole sculpture much finer.

North Australia. *Jukes*.

60. ARTEMIS TENUILAMELLATA (pl. cxliii. f. 68), *Sowerby, junior*.

Art. testâ *A. lamellatæ* et *A. duplicatæ* simili, sed tenui, lamellis duplicatis tenuissimis, acutis.

In this shell the lamellæ are all thin and sharp. The shell is also thin and of an oval form. It bears a resemblance to *A. lamellata* and *A. duplicata* of *Reeve*. Like *A. lamellata*, it has the canaliculated structure of the dorsal area, but the laminæ are totally different.

Locality unknown. In Mr. Sowerby's collection.

61. ARTEMIS EXCISA (pl. cxliii. f. 69), *Chemnitz* (*Venus excisa*), *Philippi*, *Abbild.* *Reeve*, *Conch. Icon.*

Art. testâ subtrigonâ, crassiusculâ, albidâ, concentricè subru-



gosâ, elevatim striatâ; areâ ligamenti excavatâ; lunulâ amplâ, subobsoletâ.

White, with the shape rather tending to trigonal, with roughish riblets or raised striæ; ligamental area sharply excavated; lunule wide, rather indistinct.

Nicobar Island.

62. ARTEMIS CONTUSA (pl. cxliii. f. 70), *Reeve*, *Conch. Icon. Art.* pl. vii. f. 38.

Art. testâ obliquè subglobosâ, crassâ, albidâ, umbones versus sublividâ, concentricè costellatâ, costellis complanatis; areâ ligamenti excavatâ, planâ; lunulâ impressâ, latâ.

Whitish, clouded with dull blue near the umboes, rather thick, smooth, and obliquely gibbous, concentrically ridged; the ridges rather broad and flat. The ligamental area angularly excavated, and smooth.

Point Cunningham, North Australia. *Dring*.

SECT. 6. *Edge of the dorsal area raised above the circumscripting line.*

63. ARTEMIS ALATA (pl. cxliv. f. 73), *Reeve*, *Conch. Icon.* pl. iv. f. 20.

Art. testâ albâ, sublævigatâ, altâ, planâ, ad latus posticum sulco profundo alam formante radiatim divisâ; lunulâ suboblongâ; umbonibus parvis, subarcuatis.

A nearly smooth, white, flat shell, remarkable for a radiating groove at the hinder part, which separates a wing-shaped area from the rest. As this may be equivalent to the raised ligamental areas in *A. pubescens* and *A. striatissima*, I place the species with them, although otherwise very unlike.

Locality unknown. In Mr. Cuning's collection.

64. ARTEMIS PUBESCENS (pl. cxliii. f. 72), *Philippi (Cytheræa)*, *Abbild. t. 8. f. 3.* Art. cælata, *Reeve*, *Conch. Icon.* pl. v. sp. 28.

Art. "testâ subquadrato-orbiculari, lacteâ, striis transversis confertis, versus utramque extremitatem paucioribus et lamellaribus sculptâ; lunulâ cordatâ, compressâ, lineâ profundissimâ circumscriptâ; areâ lineari-lanceolatâ, lamellarum extremitatibus spinæ-



formibus cinctâ; ligamento conspicuo, iterum lamellis spinæformibus circumdato.”

White, rather squarish, and remarkable for a deeply-impressed line dividing off a portion of the dorsal edge; near this line the concentric ridges are laminated and produced into points.

Catanuan, island of Luzon, Philippines; in fine sand at low water. *Cuming*.

65. ARTEMIS STRIATISSIMA (pl. cxliv. f. 71-84), *Sowerby, junior*.

Art. testâ subrotundatâ, albâ, radiatim minutissimè striatâ, concentricè costellatâ; costellis parvis, subdistantibus; margine dorsali lineâ impressâ aream elevatam circumscribente; lunulâ tumidâ, margine profundè impresso.

More rounded than *A. pubescens*, with the concentric ridges more distant and less produced at the margins, and with fine radiating striæ. It resembles that species in having a defined supplemental area.

Locality unknown. In Mr. Cuming's collection.

SECT. 7. *Dorsal area laminated in one valve, smooth in the other.*

66. ARTEMIS RUFA (pl. cxliv. f. 77), *Lamarck* (Cytheræa), sp. 37.

Art. testâ rufâ, variè albo-radiata et interruptâ, rotundatâ, subventricosâ, crassâ, concentricè subplano-costatâ; costellis ad latera elevatiusculis: lunulâ brevi, planâ, impressâ, dorso rotundato; areâ ligamenti striatâ, planiusculâ, excavatâ.

Rounded, rather ventricose, thick, concentrically ribbed; the ribs flattened in the middle and slightly elevated at the sides. Ligamental area striated, rather flattened and hollowed out.

Locality unknown.

67. ARTEMIS JUVENILIS (pl. cxliv. f. 74, 75, 76), *Gmelin* (Venus), Syst. Nat. p. 3287. V. juvenis, *Chemnitz*.

Art. testâ albâ, rufo latè interruptim et variè radiatâ, rotundatâ, compressâ, concentricè costatâ; costellis in medio planatis, ad latera paucis, laminatis, elevatis; lunulâ brevi, impressâ; areâ ligamenti angustatâ, striatâ, paululum excavatâ.

The dorsal margin is less rounded than in *A. rufa*; the shell



is flatter, and the concentric ridges, instead of being thickened, are raised and laminated at the sides.

Bay of Manilla, isl. Luzon, Philippines; sandy mud. *Cuming*.

68. *ARTEMIS SCALARIS* (pl. cxliv. f. 78), *Menke* (Cytheræa), Moll. Nov. Holl. p. 42. no. 241.

Art. testâ rotundatâ, subcompressâ, paululum latiore quam altâ, albidâ, rufo pallido plus minusve radiatim et interruptim pictâ, concentricè costellatâ; costellis in medio planatis, ad latera tenuè laminatis et elevatis; lunulâ brevi, impressâ, excavatâ.

Larger and broader than *A. juvenilis*, the colouring a more delicate fawn, and all the ribs continued to the sides, where they are close and laminated.

Mouth of the Swan River, New Holland.

69. *ARTEMIS ANUS* (pl. cxliv. f. 82), *Philippi*, Abbild. *Cyth.* pl. viii. f. 1.

Art. testâ subquadrato-orbiculari, subcompressâ, crassâ, concentricè costellatâ, pallidè fasciatim fulvâ, ad apicem rufescente; costellis acutis, subirregularibus, ad latera paucis, elevato-laminatis, subdivaricatis; lunulâ profundè impressâ, laminatâ; areâ ligamenti angulatim excavatâ, planâ.

Rather squarish at the sides, sharply costellated, with the ribs few, laminated and divergent at the sides, so as to give a wrinkled appearance. The ligamental area is flat and angularly excavated.

New Zealand. *Earl*.

70. *ARTEMIS PROSTRATA* (pl. cxliv. f. 80), *Linn.* Syst. Nat. 12th edit. p. 1133.

Art. testâ obliquè quadratâ, compressâ, pallidè fulvâ, concentricè costellatâ; costellis ad latera irregulariter et interruptim convergentibus et corrugatis, ad marginem dorsalem elevatim sublamellosis; areâ ligamenti subexcavatâ; lunulâ subelongatâ.

Not very far removed from *A. anus*; it is much squarer and flatter, with the riblets more irregularly wrinkled and more elevated at the dorsal margin.

Mouth of Swan River, New Holland. *Collie*.

71. *ARTEMIS LAMINATA* (pl. cxliv. f. 86, 87), *Reeve*, Conch. Icon. pl. vii. f. 41.

Art. testâ albâ, orbiculari, concentricè laminatâ; laminis sub-



distantibus, alternis, ad latera latè expansis, subreflexis; areâ excavatâ; lunulâ lineâ profundâ circumscriptâ.

Like *A. juvenilis* and *A. scalaris*, but with the ridges laminated; some ending suddenly and others spread out into broad reflected laminæ at the sides. Fig. 87 represents a much less broadly laminated variety.

Island of Samar, Philippines. *Cuming*.

72. ARTEMIS VARIEGATA (pl. cxliv. f. 83), *Gray*, Analyst, 1838, vol. viii. p. 309. Venus exoleta variegata, *Chemnitz*. V. australis, *Quoy et Gaimard*, Voy. Astr.

Art. testâ orbiculari, subventricosâ, albidâ, fusco-purpurascente, latè triradiatâ, omnino rufo pallidè literatâ, intùs purpureo-tinctâ, concentricè costellatâ; costellis subdistantibus, elevato-laminatis, ad latera paucioribus, acutiusculis; areâ ligamenti acutè excavatâ, valvæ dextræ laminatâ, alterâ planâ; lunulâ rotundatâ, impressâ, purpureâ.

Rather orbicular and ventricose, beautifully variegated with purplish interrupted rays and spots, and having the ribs elevated, rather distant, elevated and laminated, thinner and fewer at the sides.

Philippine Islands; Moluccas; Australia.

73. ARTEMIS LIRATA (pl. cxliv. f. 85), *Sowerby, jun.* A. variegata, var., *Reeve*, Conch. Icon. Art. f. 33 a.

Art. testâ suborbiculari, compressâ, albidâ, fusco radiatim literatâ, concentricè costellis distantibus elevatis continuis liratâ; lunulâ impressâ, suboblongâ; areâ ligamenti lineari, valvæ sinistrae planâ, valvæ dextræ laminatâ.

Flatter than *A. variegata*, with the concentric ridges more distant and continuous, and all traces of the purple colouring are lost, only pure brown angular markings remaining. This species looks so different from *A. variegata* that one is compelled to separate it notwithstanding the existence of intermediate varieties.

Cagayan, isl. of Mindoro, Philippines. *Cuming*.

74. ARTEMIS LENTICULARIS (pl. cxliv. f. 81), *Sowerby, jun.* A. variegata, var., *Reeve*. Artemis, f. 29 b, 33 c.

Art. testâ lenticulari, compressâ, pallidè fulvâ, fusco-radiatâ et literatâ, concentricè confertim costellatâ; areâ ligamenti vix excavatâ; lunulâ impressâ.



This species presents a medium between *A. variëgata* and *A. exoleta* in general appearance, and in the character of the ribs and markings. The ribs are much more close and flat than in *A. variëgata*.

Philippines. *Cuming*.

### Genus LUCINOPSIS, *Forbes & Hanley*.

LUCINOPSIS UNDATA (pl. cxliv. f. 88, 89). Venus undata, *Pennant*, Brit. Zool. vol. iv. pl. 55. f. 51. Venus sinuosa, *Id.* Lucina undata, *Turton*. Venus incompta, *Philippi*. Cytheræa undata, *Macgill*. Artemis undata, *Abler*.

L. testâ tenui, inflatâ, pallidè fulvâ, subquadratum rotundatâ, irregulariter et leviter substriatâ; margine dorsali subelevato; margine postico subsinuato; cardine posticè subcomplanato, dentibus in valvâ sinistrâ tribus centralibus, quarum medio duplicato, in valvâ dextrâ duobus; ligamento magno, internè complanato; impressione pallii sinu magno rotundato.

It seems doubtful whether the characters named by the proposers of this genus are sufficient to distinguish it from the *Artemides*. The teeth slightly differ, and the sinus in the muscular impression is less angular.

A well-known species, found in various parts of the British coasts.

### LIST OF FIGURES IN PLATES CXL. TO CXLIV.

(The Figure after each name is the number of the Species.)

Fig.	PLATE CXL.	Fig.
1.	<i>A. concentrica</i> , 1, <i>Gmel.</i>	6. <i>A. simplex</i> , 8, <i>Hanl.</i>
2.	— <i>ponderosa</i> , 3, <i>Gray.</i>	7. — <i>incisa</i> , 5, <i>Reeve.</i>
3.	— <i>distans</i> , 2, <i>Sowb.?</i>	8. — <i>Patagonica</i> , 6, <i>Ph.</i>
4.	— <i>concinna</i> , 9, <i>Sowb.</i>	9. — <i>discus</i> , 10, <i>Reeve.</i>
5.	— <i>Dunkeri</i> , 7, <i>Ph.</i>	10. — <i>plana</i> , 11, <i>Reeve.</i>
		11. — <i>nitens</i> , 11, <i>Reeve.</i>



$\frac{1}{2}$  diam.

CXL.



George Sowerby

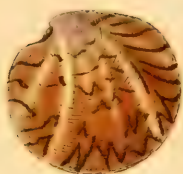






*1/2 diam.*

CXL



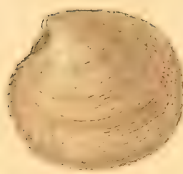
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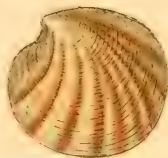
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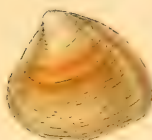
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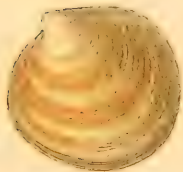
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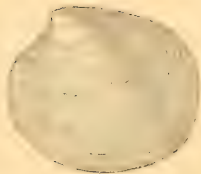
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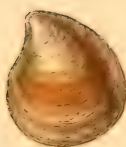
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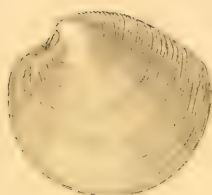
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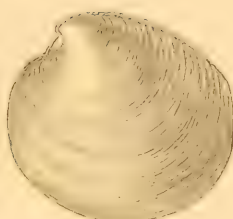
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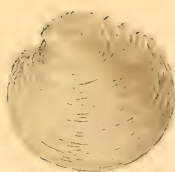
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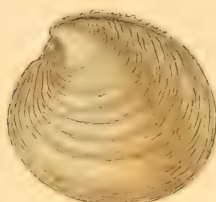
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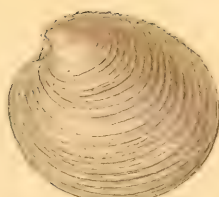
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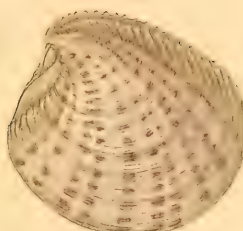
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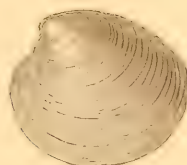
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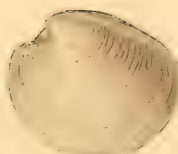
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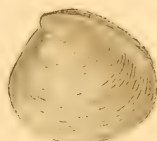
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67



68



69



70







$\frac{1}{2}$  diam.

CXLIV.



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Fig.

## PLATE CXLI.

- 12-14. *A. exoleta*, 12, *Linn.*  
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 31. — *nanus*, 19, *Reeve.*  
 32. — *macilentia*, 25, *Reeve.*

## PLATE CXLII.

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 37. — *modesta*, 30, *Reeve.*  
 38. — *solidula*, 34, *Sowerby.*  
 39. — *lucinoides*, 39, *Reeve.*  
 40, 41. — *rubicunda*, 35, *Ph.*  
 42. — *sericea*, 36, *Reeve.*  
 43, 44. — *cærulea*, 32, *Reeve.*  
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Fig.

54. *A. Orbignii*, 38, *Dunker.*  
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56. *A. aspera*, 48, *Reeve.*  
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## PLATE CXLIV.

73. *A. alata*, 63, *Reeve.*  
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 86, 87. — *laminata*, 71, *Reeve.*  
 88, 89. *LUCINOPSIS undata*, *Pennt.*



## MONOGRAPH OF THE GENUS

# TAPES.

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*Fam. Veneridæ.*

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(TAPES, *Megerle*; PULLASTRA, *Sowerby*.)

*Char. Gen.* Testa æquivalvis, inæquilateralis, plerumque ovali-oblonga, plerumque concentricè plus minusve lirata. Cardo elongatus, angustatus, dentibus in utrâque valvâ tribus, compressis, posticis et medianis duplicatis. Ligamentum elongatum. Impressiones musculares pyriformes. Impressio pallii sinu profundo, plerumque elongato.

The distinctions between these shells and those of the genus *Venus* are vague and uncertain; consisting principally in the lengthened form of outline, and in the compressed and bifid character of the hinge-teeth. The sinus in the pallial impression is also generally deep and conformed to the length of the shell. The external surface is generally marked by concentric ribs or striae. The typical species, *Venus pullastra*, and its rock-dwelling variety *V. perforans*, have been placed in separate genera (the latter in *Venerirupis*, Lamarck), but are now established beyond question as belonging to the same species; the difference of form and surface resulting from the accidental confinement of the shell in some small hollow preventing its full development. *Tapes decussata* leads into several other species which have radiating striae or ribs; and these again lead into others which so nearly resemble them as to induce me to include them, although they have crenulated inner margins. Although some of the species are subject to occasional confinement in small hollows of rocks, it is by no means the general habit of the genus, as in the case of the true *Venerirupes*.

Many of the large and finely coloured species of *Tapes* are inhabitants of the Australasian seas, while others of less striking development are found near the British coasts and in the Mediterranean.



SECT. 1. *Ventral margin smooth within.*

1. TAPES RARIFLAMMA (pl. cxlv. f. 3, 4, 5), *Lamarck* (Venus), sp. 45. Anim. sans vert. Var. Venus marmorata, *Lamarck*?

T. testâ crassâ, ovali, tumidâ, subæquilaterali, planulatim lirâtâ, sulcis intermediis subdistantibus in medio subobsoletis fulvâ, maculis elongatis castaneis et alteris albescentibus triradiatâ; margine dorsali livido, rufo-lineato, excavato; margine ventrali rotundato.

An oval tumid shell, with flat ribs divided by rather distant grooves, which are more shallow in the middle; the colouring is bay, with three radiating rows of distant arrow-headed spots with white spaces under them.

Senegal.

2. TAPES PAPILIONACEA (pl. cxlv. f. 1, 2), *Lamarck* (Venus), Anim. sans vert.

T. testâ elongatâ, subcompressâ, planulatim lirâtâ, posticè par-tim lævigatâ; stramineâ, griseo et rufo minutè maculatâ, maculis castaneis magnis quatuor radiatâ, intus ad marginem purpureo-maculatâ; margine dorsali literato, posticè arcuato, elongato, declivi, anticè excavato; lunulâ indistinctâ, lanceolatâ; margine ventrali posticè subtruncato, vix emarginato, anticè elevato.

Long, rather flat, with flattened ridges reaching nearly to the back; the dorsal edge is arched and gradually sloped at the back, while in front it is rather excavated than otherwise; it is marked on both sides with fine lines. The ventral margin is more swollen in front than at the back, but turned up towards the dorsal margin. It is straw-coloured, with greyish and reddish small spots, and four radiating rows of large squarish chestnut-coloured spots. The inner margin is marked with purple spots.

Ceylon.

3. TAPES LIRATA (pl. cxlv. f. 19), *Philippi* (Venus), Abbild. pl. vii. f. 5.

T. testâ subrhomboideâ, rotundatim sulcis profundis lirâtâ; pallidè rufâ, fusco punctatim literatâ, maculis magnis castaneis quadriradiatâ; margine dorsali literato, utrinque rectiusculo, gradatim declivi, margine ventrali rectiusculo, anticè paululum elevato.



Coloured like *T. papilionacea*, more ventricose and square, with the ribs continuous, rounded and elevated.

Philippines.

4. TAPES EXARATA (pl. cxlv. f. 18), *Philippi* (Venus), Abbild. pl. v. f. 6.

T. testâ subquadratâ, minutè et profundè lirâtâ; pallidè fulvâ, pallidè rufo maculatâ et literatâ, maculis pallidis quadriradiatâ; margine dorsali literato, rectiusculo, paululum declivi; margine ventrali posticè truncato, prope medium vix emarginato, anticè elevato.

Resembling *T. lirata*, but shorter and more truncated, with the riblets very minute although equally deep. The colour is pale literated brown, with four pale brown interrupted rays.

Red Sea.

5. TAPES EUGLYPTA (pl. cxlv. f. 17), *Philippi* (Venus), pl. vii. f. 3.

T. testâ subquadratâ, distanter concentricè costellatâ; rufâ, fusco-quadriradiatâ; margine dorsali rectiusculo, posticè vix declivi; margine ventrali posticè truncato, rectiusculo, anticè elevato.

Of a square form resembling *T. exarata*, but with the ridges few and distant.

Locality unknown.

6. TAPES AMABILIS (pl. cxlv. f. 11), *Philippi* (Venus), Abbild. pl. vii. f. 2.

T. testâ oblongâ, subventricosâ, planulatim sulcis profundis intermediis lirâtâ; pallidè rufâ, griseo obscure maculatâ; margine dorsali vix literato, posticè declivi, anticè subexcavato; margine ventrali subrotundato, anticè elevato, posticè rotundatim subtruncato.

The colour is pale pink, with obscure markings of purplish-grey. The ribs are flat, with deep intermediate grooves. The shell is more ventricose than *T. lirata*.

Locality unknown. A fine specimen in Mr. Cuming's collection.

7. TAPES DECLIVIS (pl. cxlv. f. 9), *Sowerby, jun.*

T. testâ elongato-subtrigonâ, subæquilatera, fulvâ, griseo macu-



latâ et radiatâ, concentricè subundulatum costellis vix elevatis lirâtâ; margine dorsali literato, declivi, subplanulato, anticè breviusculo; lunulâ elongatâ; margine ventrali anticè rotundato, posticè paululum emarginato.

Longer, less turned upwards at the ventral edges, and less trigonal than *T. Malabarica*, the riblets scarcely raised.

Philippines.

8. *TAPES SULCOSA* (pl. cxlv. f. 13, 14), *Philippi* (Venus), Abbild. t. 7. f. 1.

*T.* testâ subtrigonâ, fulvâ, rubescente, griseo punctatâ, et interruptim quadriradiatâ, costellis concentricis magnis inæqualibus subundulatis lirâtâ; latere antico brevi, subacuminato, latere postico obliquè truncato; margine dorsali literato, planulato, posticè elevato, rotundato, anticè subexcavato; margine ventrali anticè rotundato, posticè subangulato, ante angulum paululum emarginato.

Of an oval trigonal form, rather short and pointed in front, raised and truncated at the back. The ribs are broad, and in the narrow interstices may be seen faint grey spots, in addition to four interrupted purplish rays, more or less visible over the ribs.

Australia.

9. *TAPES SEMIRUGATA* (pl. cxlv. f. 12), *Philippi* (Venus), Abbild. t. 7. f. 6.

*T.* testâ *T. sulcosæ* simili, sed costellis ad latera et umbones evanidis.

The ribs are only seen on the middle portion of the ventral part of the shell, and the dorsal edge is rather straight; in other respects this species bears a close resemblance to *T. sulcosa*.

Locality unknown. In Mr. Hanley's collection.

10. *TAPES TEXTILE* (pl. cxlvi. f. 26, 27, 28), *Gmel.* Chemn. pl. 42. f. 442. Venus undulata, *Dillwyn*.

*T.* testâ ovali, oblongâ, crassâ, lævigatâ, fulvâ, fasciatim griseo-angulatum fusco vel griseo lineatâ et reticulatâ; latere antico brevi, subacuminato; margine dorsali purpureo-literato, gradatim declivi, anticè lunulato; umbonibus tumidis.

Oval, rather long, smooth, of a buff-colour reticulated with greyish-brown.

Coast of Malabar, *Lam.* The small variety with livid umboes



was collected by Mr. Strange at Brisbane, east coast of New Holland. Mr. Cuming and Mr. Hanley have specimens. The white variety is in Mr. Cuming's collection, also from New Holland.

11. *TAPES RIMOSA* (pl. cxlvi. f. 29), *Philippi* (Venus), Ab-bild. t. 7. f. 7.

T. testâ ovali, oblongâ, tenui, lævi, prope marginem undulatim sulcatâ, fulvâ, purpureo et fulvo lineatim reticulatâ et prope marginem radiatâ; latere antico brevi, subacuminato; margine dorsali literatâ, gradatim declivi; lunulâ lanceolatâ; umbonibus parvis.

Shaped like *T. textilis*, but thinner and rather less ventricose; near the margin there are distinct sulci, not quite parallel with it. The markings are rather more purple, and towards the edge inclined to radiate.

The specimen in Mr. Cuming's collection is from China.

12. *TAPES POLITA* (pl. cxlv. f. 15, 16), *Sowerby, jun.*

T. testâ ovali, ventricosâ, lævigatâ, prope marginem ventralem leviter vix sulcatâ; fulvâ, rubescente, rufo-griscescente literatim obscure maculatâ; latere postico subtruncato; latere antico subacuminato, breviusculo; margine dorsali literato, gradatim declivi, anticè lunulato; umbonibus castaneo-unimaculatis; margine ventrali subrotundato, anticè ascendente.

A pretty, polished, rather small, oval, ventricose shell, similar in form to *T. sulcosa*, of a reddish fawn-colour, obscurely marked with a dull reddish-grey; near the ventral margin are two or three very slight riblets, and the umboes have a little mark of reddish-brown at the apex. Inside orange under the umboes and marked with grey near the margin.

A single specimen of this interesting shell is in Mr. Cuming's collection; it was found by Mr. Strange, in mud, at a depth of six fathoms, near Sydney.

13. *TAPES MALABARICA* (pl. cxlv. f. 6, 7, 8), *Chemn.* (Venus), Conch. vol. vi. t. 31. f. 324, 325. T. rhombifera, *Bruguère.*

T. testâ subtrigonâ, subæquilaterali, fulvâ, griseo maculatâ et radiatâ, concentricè subundulatim costellis rotundatis lirâtâ; margine dorsali literato, declivi, posticè subcomplanato, anticè excavato; margine ventrali rotundato, posticè emarginato, utrinque elevato; umbonibus elevatis.



Rather trigonal, with the hinder side not much longer than the front, the concentric ridges slightly undulating, raised and rounded; the dorsal margin very sloping, flat and lettered; the ventral margin rounded, slightly bent inwards at the back, and raised towards the front extremity, which is rather pointed. One variety has grey markings, rayed and zigzag; the other is of a pale fawn-colour, in which these markings are very pale or slightly visible.

Moluccas.

14. TAPES SINUOSA (pl. cxlv. f. 10), *Lamarck* (Venus), Anim. sans vert. no. 72.

T. testâ subtrigonâ, subæquilaterali, fulvâ, rufo pallidè radiatim lineatâ et subpunctatâ, concentricè costellis numerosis laminatis erectis lirâtâ, posticè angulatâ; margine dorsali declivi, validè excavato; margine ventrali posticè sinuato.

With the form of *T. rhombifera*, this species has the riblets raised and laminar, and the ventral margin exhibits a bend similar to that in *Tellina*.

Australia.

15. TAPES PINGUIS (pl. cxlvi. f. 20, 21, 22, 23), *Chemn.* vol. vi. pl. 34. f. 355, 356, 357. Var. Venus nebulosa, *Chemn.* f. 359, 360. Venus opima, *Gmel.*

T. testâ crassâ, ventricosâ, lævigatâ, subovali, brevi; fulvâ griseo nebulatâ, vel albâ fulvo nebulatâ, vel pallidè carneo undulatim pictâ; umbonibus magnis; margine dorsali posticè declivi, anticè subexcavato; latere postico subtruncato; latere anticè brevi, rotundato; margine ventrali rotundato.

A remarkably tumid and thick shell, with large umboes, variously painted.

Ceylon and Tranquebar.

16. TAPES CEYLONENSIS (pl. cxlvi. f. 24, 25), *Sowerby, jun.*

T. testâ ovali, oblongâ, crassâ, lævigatâ, ventricosâ, fulvâ, pallidè viridi fasciatâ, minutè fulvo-marmoratâ, nonnunquam griseo radiatâ; margine dorsali livido, anticè distinctè lunulato; latere antico brevi; latere postico subtruncato; margine ventrali subrotundato.

Resembling *T. pinguis*, but much longer and less ventricose.

Ceylon. In Mr. Cuning's cabinet.



17. *TAPES TURGIDA* (pl. cxlvii. f. 53, 54), *Lamarch* (Venus), Anim. sans vert. no. 39. var. *Venus rufa*, *Lam.* no. 30. *Venus ovulea*, *Lam.* No. 59. *V. dorsata*, *Lam.* no. 31.

*T.* testâ ovali, subquadrâtâ, ventricosâ, costellis concentricis validis posticè laminatis lirâtâ, radiatim minutè striatâ; fulvâ, rufescente, maculis fuscis radiâtâ, intus roseo tinctâ; latere antico brevi, rotundato; latere postico lato, angulato, truncato; margine dorsali posticè elevato, anticè lunulato et literato; margine ventrali rectiusculo.

Very ventricose and angular at the back, with fine radiating striae over distinct concentric ridges, which are laminated at the hinder side. The colour is reddish-fawn, more or less obscurely lettered and rayed with large dark brown spots; a pinkish tint within. A variety occurs nearly white and spotless.

Australia.

18. *TAPES LITERATA* (pl. cxlvii. f. 43, 44, 45, 46, 47, 48, 49), *Chemn.* (Venus), t. 41. f. 432-3-4. var. *Venus punctata*, *Chemn.* t. 41. f. 436, 437. var. *Venus nocturna*, *Chemn.* t. 41. f. 435. *V. punctifera*, *Lamarch*, no. 38.

*T.* testâ magnâ, subcompressâ, concentricè minutè subundulatim lirâtâ; fulvâ vel albâ, variè pictâ; latere antico brevi, subacuminato; latere postico elongato, lato, subangulato, subtruncato; margine dorsali posticè elongato, rectiusculo, depresso, angustato, anticè lanceolatim lunulato, declivi; margine ventrali posticè subarcuato.

This large well-known species is variously marked with angular lines, broad patches, or spots of brown.

Australia.

19. *TAPES ASPERSA* (pl. cxlvii. f. 52), *Lamarch* (Venus), Anim. sans vert. no. 37. *T. litterata*, var. *Dillwyn*.

*T.* testâ magnâ, subcompressâ, concentricè subundulatim sulcis distantibus lirâtâ, fulvâ, griseo obscure literâtâ, vel nigro-punctatâ, maculis magnis nigrescentibus et albis alternatim quadriradiâtâ; latere antico brevi, subacuminato, declivi; latere postico subdeclivi, elongato, lato, subtruncato; arcâ dorsali angulatim excavatâ; margine ventrali paululum arcuatâ.

The regular rays of black spots on whitish ground, and the much greater breadth of the ribs, may be considered as distinguishing this species from *T. aspersa*. The latter character is the most important.

Philippines, *Cuming*.



20. TAPES BELCHERI (pl. cxlvii. f. 50, 51), *Sowerby, jun.*

T. testâ ovali, subcompressâ, concentricè leviter sulcatâ, pallidè fulvâ, griseo literatâ et maculis nigrescentibus triradiatâ; margine dorsali literato, subarcuato; latere antico brevi; lunulâ purpureo-lineatâ.

Formed like *T. pullastra* or *T. virginea*, of a sandy colour, lettered and radiated with grey, and very remarkable for the bright purple lines on the lunule.

Locality unknown. Specimen in Mr. Hanley's collection; brought by Captain Belcher.

21. TAPES SULCARIA (pl. cxlvi. f. 30, 31, 32), *Lamarck* (Venus), Anim. sans vert. No. 41.

T. testâ oblonga, subquadratâ, flavidâ seu aurantiâ seu fulvo-violascente, fulvo literatâ et radiatâ, planulatum sulcis posticè evanidis liratâ; latere antico brevissimo, declivi; latere postico elongato, truncato, angulato; margine dorsali depresso, rectiusculo, anticè lunulato, declivi; margine ventrali paululum arcuato.

Oblong, with the anterior side short and sloping, the posterior side angulated, long, and obliquely truncated; the sulci between the flattened ribs nearly disappear towards the hinder angle, where the shell is nearly smooth.

Moluccas.

22. TAPES DESHAYESII (pl. cxlvi. f. 34, 35, 36, 37, 38), *Hanley* (Venus), Sp. of Sh. Appen. Suppl. pl. xvi. f. 35.

T. testâ *T. sulcariae* simili, sed minore, posticè vix angulatâ, sulcis continuis, posticè gradiformibus.

Smaller and less angular than *T. sulcaria*, with the sulci continuous, and at the hinder part of the shell producing step-like ribs. In the typical variety the markings consist of lettering, with two broad bands of darker tint, edged by white and yellow rays, with dark spots. We figure several other varieties.

Philippines.

23. TAPES RECENS (pl. cxlviii. f. 62, 63, 64, 65, 66), *Chemn.* (Venus), Conch. pl. 202, f. 1979. Venus radiata, *Chemn.* pl. 201, f. 1971, 1972, 1973.

T. testâ obliquè subtrigonâ seu ovali, albâ, griseo variè pietâ, lævigatâ, ad latera sulcatâ, umbonibus prominentibus; latere postico elongato, plus minusve acuminato; latere antico rotundato;



margine dorsali utrinque excavato, declivi, margine ventrali subrotundato.

Rather oblique in form, thick and ribbed at the sides ; figure 66, approaching nearest to the figure of Chemnitz, may be considered the representative of this very variable species.

China.

24. *TAPES LATERISULCA* (pl. cxlviii. f. 67 to 76), *Lamarck*, (Venus), Anim. sans vert. No. 60.

T. testâ obliquè subtrigonâ seu ovali, variè pictâ, lævigatâ, ad latera sulcatâ, umbonibus tumidis ; latere postico elongato, plus minusve truncato ; margine dorsali utrinque excavato, declivi.

This species is equally variable in form and colouring with *T. recens*, from which it may perhaps be separated by the prevailing breadth and squareness of the hinder portion contrasted with the acumination of *T. recens*. In both a portion of the hinder part of the shell is smooth, the sulci having the appearance of being as it were rubbed out.

Philippines. *Cuming*.

25. *TAPES CATENIFERA*, (pl. cxlix. f. 106, 107, 107\*), *Lamarck*, (Venus), Anim. sans vert. No. 70.

T. "testâ ovatâ, transversim sulcatâ, albidâ, radiis quatuor fuscis catenulatis ornatâ ; ano impresso, subcordato."

The four chain-like rays marking our principal variety of this shell may serve to identify the species, and the above description is pretty accurate as far as it goes. I may observe that the sulci are a little lost sight of near the ventral margin at the posterior part of the shell.

Locality unknown. In Mr. Cuming's and other cabinets.

26. *TAPES FLAMMICULATA* (pl. cxlviii. f. 56-61), *Lamarck* (Venus), Anim. sans vert. No. 77. Var. Venus hiantina, *Lam.* No. 32. Venus carneola, *Lam.* No. 65 ? V. callypiga, *Lam.* No. 61. (non Born.)

T. testâ obliquè subquadratâ, tumidâ, fulvâ vel aurantiâ vel albâ, variè pictâ, concentricè undulatim sulcatâ, radiatim tenuiter striatâ, posticè subtruncatâ, angulatâ ; margine dorsali declivi, utrinque subexcavato ; margine ventrali subarcuato.

A very variable, tumid, angular species, with wave-like concentric ridges.

Australia.



27. *TAPES RIMULARIS* (pl. cxlviii. f. 55), *Lamarck* (Venus), Anim. sans vert. no. 74.

T. testâ *T. flammiculatæ* simili, sed magis angulatâ, sulcis prope angulum magnis, irregularibus, colore fulvo-grisescente.

Shorter and more angular than *T. flammiculata*, with the sulci much more gross and irregular. Of a dull greyish fawn-colour. New Holland.

28. *TAPES TENUISTRIATA* (pl. cxlviii. f. 78, 79), *Sowerby, jun.*

T. testâ *T. flammiculatæ* simili, sed tenui, vix angulatâ, magis compressâ, sulcis numerosis, parvis; margine dorsali vix depresso; colore fulvo-violascente, albo-biradiato; lunulâ cordatâ, coloratâ.

Like *T. flammiculata*, but thin, scarcely angulated, more compressed, with the sulci more fine and numerous. The dorsal margin is scarcely depressed; the colour rather purplish-fawn, with two white rays. The lunule is darkly coloured.

Locality unknown. There is a large specimen in Mr. Cuming's collection, and a small one in Mr. Sowerby's.

29. *TAPES LUZONICA* (pl. cxlix. f. 100, 101), *Sowerby, jun.*

T. testâ ovali, concentricè costellis numerosis rotundatis lirâtâ; rufâ vel griseâ, radiatim fusco maculatâ et variegatâ; lunulâ distinctâ; margine dorsali lividâ; margine ventrali subrotundato.

Regularly oval, with numerous rounded riblets, of a speckled reddish or greyish colour, radiated and variegated with brown spots.

Puteo, island of Luzon, Philippines. *Cuming*.

30. *TAPES INCERTA* (pl. cxlviii. f. 77), *Sowerby, jun.*

T. testâ subtrigonâ, costellis numerosis rotundatis lirâtâ, crassâ, posticè angulatâ, subacuminatâ, anticè brevi; fulvâ, griseo radiatim maculatâ, posticè aurantiâ; margine dorsali declivi, utrinque livido; margine ventrali paululum arcuato.

A more regularly formed shell than *T. flammiculata*, more acuminate at the back, and the costæ more regular and rounded.

Locality unknown. The specimen is Mr. Hanley's.

31. *TAPES PERPLEXA* (pl. cxlviii. f. 80), *Sowerby, jun.*

T. testâ obliquè subtrigonâ, costellis rotundatis numerosis lirâtâ, posticè subangulatâ et subtruncatâ, anticè brevissimâ; fulvâ



rubescence-albo sparsim maculatâ, maculis fuscis parvis quadri-radiatâ; margine dorsali declivi, livido; margine ventrali subrotundato; lunulâ distincta; umbonibus lividis.

Something like *T. incerta*, but more oblique and more depressed. The hinder part is less angular, but more truncated. The four rays, composed of small square spots, are remarkable, and the umboes are purplish.

Locality unknown. In Mr. Sowerby's collection.

32. TAPES FLORIDA (pl. cxlix. f. 112, 113), *Lamarek* (Venus), Anim. sans vert. no. 66. Var. V. intuspuncta, *Philippi*, Abbild. t. v. f. 7?

T. testâ ovali, tenui, concentricè striatâ, variè pictâ, intus aureâ; latere antico breviusculo, subacuminato; latere postico subexpanso, vix truncato.

Not so distinctly grooved nor so much truncated at the back as *T. texturata*. It is variously marked, but the largest markings are principally at the back.

Mediterranean.

33. TAPES FLORIDELLA (pl. cxlix. f. 96, 97, 98, 99, et test. jun. f. 105), *Lamarek* (Venus), Anim. sans vert. no. 69. Venus bicolor, *Lam.* no. 68. Venus pulchella, *Lam.* no. 71.

T. testâ ovali, utrinque acuminatâ, concentricè striatâ, variè pictâ, intus aureo et purpureo tinctâ; latere antico brevi, acuminato; lunulâ plerumque lividâ vel fuscâ; latere postico obliquè subtruncato.

After examining a great number of specimens, I conclude to separate this species from *T. florida*, on account of the greater acumination of the extremities. The colouring is equally variable.

Mediterranean?

34. TAPES ARENOSA (pl. cxlvi. f. 33, copied), *Philippi*, Abbild. *Venus*, pl. vii. f. 6.

T. "testâ ovato-oblongâ, transversim striatâ, lineisque radiantibus obsoletis decussatâ, albidâ, lineolis angustis rufis angulato-flexuosis pictâ; extremitate posticâ sensim attenuatâ, subrostratâ; lunulâ lanceolatâ, violaceo-lineatâ; areâ angustâ, profundatâ, vix distinctâ."

From the figure and description as here copied, I am partly inclined to think this may be a variety of *T. florida*.

Locality unknown.



35. TAPES PETALINA (pl. cxlix. f. 104), *Lamarck* (Venus), Anim. sans vert. no. 67. Venus Beudanti, *Payr.* Cat. pl. i. f. 32.

T. testâ ovali-oblongâ, concentricè minutissimè striatâ, subcompressâ, utrinque acuminatâ, rufâ, versus umbones violascente, albo-biradiatâ; latere antico breviusculo; lunulâ indistinctâ.

Flatter, more acuminate (particularly at the hinder end), and much more finely striated, than *T. floridella*. The colour is a delicate pinkish-fawn, minutely spotted, and gradually becoming purple towards the apex, from which radiate two white lines, dividing the surface into three parts.

Probably European.

36. TAPES ACUMINATA (pl. cxlix. f. 105), *Sowerby, jun.*

T. testâ *T. floridellæ* simili, sed lævigatâ; fulvâ, maculis fuscis punctatâ et radiatâ.

Exactly like *T. floridella* in form, but quite smooth.—*Ols.* Since sending this to the composer I have, on further consideration, concluded that this is but the young of *T. floridella*, which, like that of *T. virginea* and *T. geographica*, is always smooth.

37. TAPES HANLEYI (pl. cxlix. f. 102, 103), *Sowerby, jun.*

T. testâ parvâ, subtrigonâ, concentricè striatâ, purpurascente-albo et maculis fuscis biradiatâ, intus purpureâ, utrinque subacuminatâ, posticè subelongatâ; lunulâ impressâ; dente cardinali antico magno.

A small purplish shell, with very fine concentric striæ, radiated with bands of white, interrupted by little linear spots on each side. The upper margins are sloping and the terminations rather pointed; the hinder side is about twice as long as the front.

Rio Janeiro. The specimen is in Mr. Hanley's collection.

38. TAPES AUREA (pl. cxlix. f. 108, 109, 110), *Gmel.* (Venus). Venus nebulosa, *Pulteney*. Venus ænea, Venus nitens, Venus sinuata, *Turton*, Dyth. Brit. Venus vermiculosa, *Lamarck*, no. 76.

T. testâ ovali-subcordatâ, creberrimè sulcatâ, utrinque subacuminatâ, fulvâ, fusco variè subreticulatâ, intus aureâ; margine dorsali subangulato, declivi, anticè brevi, lunulato; margine ventrali post medium arcuato.

Oval, inclining to cordate, closely and evenly grooved; sides sloping and both terminations rather pointed. The ventral edge has a peculiar swell behind the centre, by which this species may



be easily distinguished from others. The inside is generally bright orange, from which, however, a variety (*V. vermiculosa*, Lam.) from Sardinia is exempt.

Great Britain and the Mediterranean and Northern seas.

39. *TAPES TEXTURATA* (pl. cxlix. f. 111), *Lamarck* (Venus) Anim. sans vert. no. 43.

T. testâ ovali-subcordatâ, subplanulatim crebrè sulcatâ, utrinque subacuminatâ, fulvâ, rufo-reticulatâ, intùs aurèâ; margine dorsali subangulato, declivi, anticè brevi, lunulato; margine ventrali paululum rotundato.

The ventral margin has not the same sudden swell that characterizes that of *T. aurea*, and the sulci are rather more distant and less rounded, particularly at the back part of the shell; in other respects it is difficult to distinguish this species, except by its markings, which are peculiar, consisting of reddish-brown reticulations. It may nevertheless be regarded as distinct.

Indian Ocean, *Lamarck*. In Hanley's and Cuming's collections.

40. *TAPES VIRGINEA* (pl. cxlix. f. 81, 82, 83, 84, test. jun. f. 92), *Linn.* (Venus), Syst. Nat. ed. 13. p. 1136. Venus rhomboides, *Pennant*. Cuneus fasciatus, *Da Costa*. Venus Sarniensis, *Turton*. Venus virago, *Loven*. Tellina elliptica, *Brown*.

T. testâ ovali-oblongâ, subcompressâ, albâ, roseo tinctâ et fasciatâ, vel fulvâ, intus roseo tinctâ, sulcis ad latera subdistantibus subplanulatis lirâtâ; latere postico elongato, obtusè subtruncato; latere antico brevi rotundato; margine dorsali rectiusculo, paululum depresso; lunulâ elongatâ, impressâ, declivi.

Of an oblong oval form, rather compressed, with grooves which are rather more distant and strong at the sides than in the middle. The ventral and dorsal margins are both rather straight; the anterior end short and rounded, the posterior obtusely truncated. The prevailing colour is pinkish-white, with rays of brighter pink and a rose tint inside. The very young shell is smooth.

North Sea, shores of Great Britain, and the Mediterranean.

41. *TAPES CUMINGII* (pl. cl. f. 128), *Sowerby, jun.*

T. testâ elongatâ, compressâ, grisescente, fusco posticè virgulatâ, anticè interruptim radiatâ, posticè elongatâ, gradatim angustatâ, ad terminum acuminatâ, anticè brevi, rotundatâ, paululum ascendente, omnino minutè divaricatim striatâ.

This shell is remarkable in form and sculpture, being somewhat of an elongate rhomboid, but tapering to almost a point at



the hinder part ; the surface is marked by diverging short striae in the direction from top to bottom ; the marking consists of dull greyish rays in front and twig-like touches at the back.

Philippines. *Cuming*.

42. TAPES CORRUGATA (pl. cl. f. 121, 122), *Gmel.* (Venus). Venus obsoleta, *Chemn.* vol. vii. pl. 42. f. 444.

T. testâ ovali, compressâ, sordidè albâ, intûs purpureo tinctâ, undulatim rugosâ, posticè subangulatâ, elongatâ, obtusè subtruncatâ, post angulum rugis magnis liratâ ; anticè brevi, subrotundatâ.

Rather flat, of a slightly angulated form, nearly white, purple within near the posterior margin and on the hinge ; with the external surface corrugated by broken, undulating riblets, which are strongest behind the slight oblique posterior angle.

Mediterranean.

43. TAPES DACTYLOIDES (pl. cl. f. 129), *Sowerby, jun.*

T. testâ *T. corrugatae* simili, sed multo magis ventricosâ, magis elongatâ et cylindricâ, rugis magis disruptis.

Not so flat nor so broad, but more cylindrical and longer than *T. corrugata*, with the rugosities more broken up.

Locality unknown. Specimen in M. Gubba's collection.

44. TAPES DISRUPTA (pl. cxlix. f. 95), *Sowerby, jun.*

T. testâ *T. corrugatae* simili, sed rugis posticè laminatis, magnis, anticè valdè disruptis ; margine dorsali elevato, recto ; testâ colore variè pictâ.

Not so oval, but still much like *T. corrugata* ; the hinder part has the ridges large and laminated, the front part shows them as it were broken up and distorted ; the shell is prettily coloured, especially at the beaks and within.

Mediterranean ?

45. TAPES OPACA (pl. cl. f. 123), *Sowerby* (Venus), Zool. Proc. 1835, p. 42.

T. "testâ oblongâ, subquadratâ, subturgidâ, lævi, opacâ, albidâ, pallidissimè purpurascēte ; latere antico breviorē, rotundato, concentricè ruguloso, postico subrotundato, supra infraque subangulato ; margine interno integerrimo ; ligamento permagno."

Oblong, large, squarish, moderately ventricose ; the front side the shorter, with equidistant raised concentric lines reaching over the third part of the shell, the rest being smooth.

Chili ; sandy mud at low water. *Cuming*.



46. TAPES MAXIMA (pl. cl. f. 127), *Philippi* (Venus), Abbild. t. 6. f. 1.

T. testâ magnâ, ventricosâ, pallidè fulvâ, ovali-subquadrâtâ, intùs albâ, pallidè purpureo tinctâ, concentricè costellis numerosis crebris, posticè subelevatis majoribus lirâtâ; ligamento magno.

This large shell is of a squarish-oval form, white inside, pale fawn outside. The riblets are rather coarser at the back. It differs from *T. opaca* inasmuch as its whole surface is concentrically striated or ribbed, and it is more ventricose.

Locality unknown.

47. TAPES LITHOIDEA (pl. cl. f. 126), *Jonas* (Venus), *Philippi*, Abbild. *Venus*, t. 4. f. 1.

T. testâ albâ, *T. opacæ* simili, sed omnino lævigatâ.

Like *T. opaca*, but smaller, and without the raised lines which characterize the anterior portion of that species.

Copaipo, Chili. *Jonas*.

48. TAPES PURPURATA (pl. cl. f. 124, 125), *Sowerby, jun.*

T. testâ ovali, subcompressâ, albâ, intùs purpureâ, irregulariter et subundulatum concentricè costellatâ; latere postico longiore, obtusè subtruncato; latere antico brevi, rotundato.

Like *T. maxima*, but of much smaller growth, and more oval. The inside is of a very deep purple colour.

Kurachee, mouth of the Indus.

49. TAPES INTERMEDIA (pl. cxlvi. f. 39, 40), *Quoy*, Astrol. t. 84. f. 5, 6. Venus ignobilis, *Anton*, *Philippi*, Abbild. t. 6. f. 2.

T. testâ ovali-subquadrâtâ, pallidè fulvâ, minutissimè radiatim striatâ, concentricè costellis irregularibus subundulatis, posticè sublaminatis, ad angulum complanatis lirâtâ; latere postico longiore, angulato, obliquè truncato, anticè brevi, supernè declivi. Var. testâ parvâ, subrotundatâ.

Of an oval subquadrate form, very minutely and radiately striated, with concentric, rather undulating riblets, which are rather laminated behind the posterior angle and peculiarly flattened near it.

New Zealand.

50. TAPES GEOGRAPHICA (pl. cxlix. f. 87 to 91), *Chemnitz*, vol. vii. pl. 42. f. 440. Var. Venus glandina?

T. testâ elongatâ, subangulatâ, minutè decussatâ, pallidè fulvâ,



posticè brunneâ, omnino lineis fuscis literatâ, seu variè pictâ seu albâ; posticè elongatâ, rectâ, truncatâ, obliquè angulatâ, post angulum lirâtâ, anticè brevi, rotundatâ.

More lengthened and much more finely striated in both directions than *T. pullastra*, with the hinge margin straight, and the ventral margin a little turned upwards at the truncated posterior extremity. The young is often quite smooth, and it is then *V. glandina* of some authors.

Mediterranean.

51. TAPES PULLASTRA (pl. cxlix. f. 85, 86), *Wood* (Venus), General Conchology. Venus perforans, *Mont.* Test. Brit. p. 127. pl. 3. f. 6. Venus Senegalensis, *Dillwyn.* Venerirupis perforans, *Lamarck.* Venerirupis nucleus, *Lam.* Venus palustris, *Mawe.* Pullastra vulgaris, *Sowerby.* Venus plagia, *Jeffreys.*

T. testâ rhomboideâ, concentricè crebrè sulcatâ, radiatim minutissimè striatâ, pallidè fulvâ, fulvo-rubescente pallidè maculatâ, nonnunquam intûs posticè purpuratâ, rugis posticis plus minusve undulatâ; latere antico brevi, vix angulato; latere postico clongato, subtruncato; margine dorsali posticè recto, anticè indistinctè lunulato, declivi; margine ventrali vix arcuato.

This species is subject to great variation, in consequence of the different conditions in which it exists. When confined in holes of rocks it becomes more oblong and irregular, with the rugosities at the hinder extremity more marked; it is then the *Venus perforans* of authors. When freely grown it is rhomboidal, pretty full, truncated and long at the hinder part, rounded and short at the front; the sculpture consists of concentric, slightly waved striæ, which are rugose and thick at the back, crossed by much finer radiating striæ.

Great Britain and northwards.

52. TAPES DECUSSATA (pl. cl. f. 115, 115\*), *Linnaeus* (Venus), Syst. Nat. p. 1135. Venus florida, *Poli,* Test. Sicil. pl. xxi. f. 16, 17. Venerirupis decussata, *Flem.* Pullastra decussata, *Brown.*

T. testâ ovali, subrhomboideâ, striis et rugis concentricis et sulcis radiatis decussatâ, fulvâ, fusco et griseo variè pictâ; latere postico oblongo, rugis conspicuis, subtruncato; latere antico brevi, subrotundato.

This well-known shell is of an oblong squarish form, rather long, straight, and truncated behind, short in front, with the



upper edge sloping; the external surface is coarsely decussated, the concentric ridges being rather larger at the extremities.

British Islands, Mediterranean Sea, and Senegal in Africa.

53. *TAPES DENTICULATA* (pl. cl. f. 114), *Sowerby, jun.*

*T.* testâ ovali-subrhomboideâ, altâ, ventricosâ, pallidè fulvâ, griseo obscurè maculatâ et radiatâ, sulcis radiantibus inæqualibus, medio alternatis, et costellis numerosis concentricis ad latus posticum denticulatis decussatâ; latere antico subrotundato, brevi; lunulâ ovali, griseo-literatâ; latere postico oblongo, obliquè truncato; margine dorsali depresso, recto, laminato, subdeclivi, griseo-literato; margine ventrali subrotundato.

A deeper and much coarser shell than *T. decussata*, with a more rounded ventral margin, the riblets denticulated at the back part of the shell, and the radiating grooves unequal and subdivided in the middle. The lunule is of an oval form, speckled with grey.

Locality unknown. In Mr. Cuming's collection.

54. *TAPES PHILIPPINARUM* (pl. cli. f. 139, 140, 141), *A. Adams* (Venus), *Zool. Voy. Samarang*, Mollusca, p. 79. pl. 22. f. 10.

*T.* "testâ oblongo-ovatâ, anticè truncatâ, fulvâ, fusco variegatâ, obscurè radiatâ, radiatim liratâ, liris numerosis, subundulatis, ad latera decussatim nodulosis; intus partim violaceâ."

Formed like *T. Indica*, but with the apex nearly terminal, so as to give the front part of the shell a truncated appearance; the radiating grooves are unequal, some of them angulated and flattened. The area of the dorsal margin is angularly excavated and the lunule small.

Philippine Archipelago. *A. Adams.*

55. *TAPES INDICA* (pl. cli. f. 146, 147), *Hanley*, MS.

*T.* testâ subrhomboideâ, fulvâ, fusco maculatim radiatâ, intus aurantiâ; sulcis acutis, numerosis, inæqualibus, radiatis, et costellis concentricis, ad latera elevatis, et posticè costellis radiatis, angulatis, serratis, decussatâ; latere postico oblongo, subtruncato; margine dorsali subdeclivi, depresso, literato; latere antico brevi, declivi; lunulâ magnâ, ovali, griseo-literatâ; margine ventrali paululum arcuato.

Indian Seas. Mr. Cuming brought specimens from the Philippines.



56. TAPES SUBSTRIATA (pl. cl. f. 116, 117), *Montagu* (Venus), Test. Brit. Suppl. p. 48. pl. 29. f. 6.

T. testâ subquadratâ, parvâ, sinuatâ, albâ, striis tenuissimis concentricis et costellis minutis æqualibus decussatâ; latere antico brevissimo, umbonibus subterminalibus; margine dorsali recto, ascendente; latere postico truncato.

Of a square form, white, and of irregular growth, decussated with very minute concentric and rather more distinct raised and equal radiating striæ; the square form results from the terminal position of the umboes, the straight dorsal edge, and the truncated hinder side of the shell. It has been passed over as a variety of *T. decussata* of confined growth, but the equality of the sculpture as well as the form forbid my adopting the same conclusion.

Great Britain.

57. TAPES LAJONKARII (pl. cl. f. 120), *Payr.* (Venus), Cat. Cor. pl. 10. f. 11, 12.

T. testâ *T. sinuosæ* simili, sed striis majoribus, medio subdepresso, margine dorsali haud tantum elevato.

I am doubtful about the characters of this species as distinguishing it from *T. sinuosa*; but having seen a number of specimens of both, and finding the slight differences well preserved in all, I venture to admit them. They are, the depression in the middle of the shell, the less elevation of the dorsal margin, and the coarser character of the sculpture in *T. Lajonkarii*, which is also usually coloured with yellowish-brown.

Corsica.

58. TAPES SUBQUADRATA (pl. cl. f. 119), *Sowerby, jun.*

T. testâ pallidè fulvâ, parvâ, compressâ, subquadratâ, minutissimè radiatim et concentricè striatâ, anticè brevi, subrotundatâ, posticè subquadratâ.

This little shell is flatter, more regular, and less square than *T. sinuosa*; it has a slight depression in the middle of the shell from the apex. The umboes are not so nearly terminal.

Locality unknown. In Mr. Hanley's collection.

On re-examination I am inclined to think this only a young specimen of *T. Lajonkarii*.

59. TAPES GALACTITES (pl. cli. f. 132), *Lamarck* (Venus), Anim. sans vert. no. 52.



T. testâ oblongâ, ovali, albâ, radiatim inæqualiter sulcatâ; latere postico elongato, obliquè subangulato, truncato; margine dorsali recto, angulatim depresso; latere antico brevi, angustato; margine ventrali posticè subrotundato, anticè ascendente.

White, long, obliquely rhomboidal, with unequal radiating sulci: our specimen is narrow at the front, and broader behind, where the ventral margin swells a little.

New Holland.

60. TAPES BRUGUIERI (pl. cl. f. 130, 131), *Hanley* (Venus), Sp. of Shells, Appen. Suppl. pl. 16. f. 16.

T. testâ oblongâ, subrhomboideâ, fulvâ, grisescente, ad umbones violaceâ vel fulvâ, albo-biradiatâ, maculis fuscis biradiatâ, radiatim ad latera serratim costellatâ, in medio planulatim sulcatâ; latere antico brevi; latere postico oblongo, obliquè subangulato, truncato; margine dorsali et margine ventrali rectis.

This is like *T. galactites*, but is less oblique, and the radiating sulci are flat, presenting angulated edges.

Ceylon. *Dr. Sibbald*.

61. TAPES VARIEGATA (pl. cli. f. 133-138), *Hanley*.

T. testâ ovali, aureo, fusco, et violaceo variè pictâ; costellis radiantibus minutis et striis concentricis minutissimis decussatâ; margine ventrali arcuato.

More oval than either of the two preceding, decussated and variously painted with tints of orange, violet, and brown, and markings of the latter.

Philippines. *Cuming*.

## SECT. 2. *Ventral margin denticulated within.*

62. TAPES DOMBEII (pl. cl. f. 118), *Lamarck* (Venus), Anim. sans vert. no. 21. Venus Chilensis, *Sowerby*, Pro. Zool. Soc. 1835, p. 41.

T. testâ ovali-subrotundatâ, magnâ, crassâ, pallidâ, fusco variè pictâ; costellis radiantibus, medianis planulatis, lateralibus crenulatis, et liris concentricis medio evanidis decussatâ; lunulâ tumidâ; margine ventrali crenulato.

A large, nearly rounded shell, with flattened radiating ribs, which are decussated (principally at the sides) by concentric ridges; the lunule is tumid.

Valparaiso Bay. *Cuming*.



63. *TAPES CRASSICOSTA* (pl. cxlix. f. 93), *Quoy* (Venus), *Voy. Ast. Moll.* pl. 84. f. 1, 2. *V. costata, Gray?*

T. testâ ovali-subquadratâ, crassâ, albâ, intus posticè violaceâ, planulatim latè radiatim costatâ, costis posticis elevatis subrugosis, anticè costellis reflexis subundulatis decussatis; margine intus minutè crenulato.

Of a rhomboidal form, rather deep, thick, and rounded; with broad radiating ribs, which are raised at the posterior part of the shell and intersected at the front by undulating concentric ribs, which do not quite reach to the middle.

Otago, New Zealand.

64. *TAPES TUMIDA* (pl. cxlvi. f. 42), *Sowerby, jun.*

T. testâ subrotundatâ, ventricosâ, crassâ, pallidâ, posticè rufo sparsim maculatâ, radiatim costatâ, costellis numerosis, anticis duplicatis, anticè concentricè leviter striatâ; umbonibus tumidis; margine ventrali intus minute denticulato.

A tumid, nearly white shell, with small radiating ribs, which, in the front part of the shell, are duplicate, and crossed by faint concentric striæ.

Columbia. In Mr. Hanley's collection.

65. *TAPES DIVERSA* (pl. cxlvi. f. 41), *Sowerby, jun.*

T. testâ crassâ, cretaceâ, rhomboideâ, ventricosâ, anticè rotundatâ, posticè truncatâ, radiatim costatâ; costellis posticè et medio inæqualibus, subserratis, acutis, anticè costellis concentricis undulatis decussatis; lunulâ lineâ impressâ circumscriptâ; margine dorsali declivi; margine ventrali denticulato; ligamento magno.

Large, chalky-white, truncated at the back, rounded in front, with radiating ribs, which at the back and middle of the shell are sharp, unequal, and denticulated; in front are crossed by rather distant concentric undulating ridges. The ligament is large; the ventral margin crenulated within.

Monterey, California. *Mr. Hartweg.*

66. *TAPES TESSELLATA* (pl. cli. f. 142, 143), *A. Adams* (Venus), *Voy. Samarang*, p. 79. pl. 22. f. 11.

T. "testâ oblongo-ovatâ, anticè truncatâ, crassiusculâ, fusco alboque strigatâ et tessellatâ, radiatim multiliratâ, transversim tenuissimè striatâ; lunulâ lanceolatâ, ovatâ."

The specimen of this shell in Mr. Cuming's collection is of a



dark purple colour inside, and has crenulations on the inner part of the ventral margin.

Philippines.

67. TAPES LIMA (pl. cli. f. 144), *Sowerby, jun.*

T. testâ ovali, subquadrâtâ, pallidâ, fusco sparsim variegatâ, radiatim costatâ, costis rotundatis, serratis, concentricè liratâ, liris super costas acuminatis; margine dorsali fulvo-lineato, paululum declivi, anticè validè declivi; lunulâ impressâ, fulvâ; margine ventrali rotundato, intus crenulato.

The strong, rounded, radiating ribs are crossed by raised lines, which are produced upon them into points.

New Zealand. Specimens in Mr. Cuming's collection.

68. TAPES DISCORS (pl. cli. f. 148, 149, 150), *Sowerby* (Venus), Zool. Proc. 1835, p. 42.

T. "testâ obovali, crassiusculâ, radiatim confertim striatâ, anticè rugis decussatâ, albâ, fusco-nigricante instratâ, coloribus valvæ alteræ diversinodo ordinatis; lineâ dorsali elevatiusculâ; intus albâ, posticè violaceo tinctâ; margine ventrali crenulato."

Formed like *T. decussata*, but more oval, and the ventral margin crenulated within. The dorsal edge is slightly sloping and one valve overlaps the other; at the end it is angular. The radiating ribs are denticulated at the back of the shell, rather sharp-edged and laterally flattened in the middle, and traversed by crenulated raised concentric lines in the front. The markings of dark brown colour always differ in the two valves.

St. Elena, South America, and Guacomayo, Central America; in sandy mud, at six to nine fathoms. *Cuming.*

69. TAPES FUSCO-LINEATA (pl. cli. f. 145), *Sowerby* (Venus), Zool. Proc. 1835, p. 41.

T. testâ *T. discordi* simili, sed fusco angulatim lineatâ.

It is not easy to see any difference between this species and *T. discors*, except in the character of the marking, which is certainly peculiar, and seems to be constant, consisting of beautifully arranged angular lines of dark brown.

Guacomayo, Central America; in sandy mud, at thirteen fathoms. *Cuming.*



70. TAPES TRICOLOR (pl. cli. f. 153), *Sowerby* (Venus), Zool. Proc. 1835, p. 41.

T. "testâ ovato-ellipticâ, crassiusculâ, radiatim costellatâ, costellis decussatis; maculis interruptis, fuscis, irregularibus, radiatim dispositis; margine dorsali medio subangulato; impressione cordiformi, anticâ parvâ; intus violaceâ; margine ventrali denticulato."

More rounded and short than *T. discors*, with the colour beautifully arranged in irregular rays of angular spots edged with dark brown. I feel doubtful, however, as to the propriety of admitting this species as distinct from *T. discors*.

Puerto Portrero, Central America; sandy mud, at eleven to thirteen fathoms. *Cuming*.

71. TAPES GRATA (pl. cli. f. 152), *Say* (Venus), American Conchology, pl. 36.

T. testâ *T. discordi* simili, sed magis rotundatâ, umbonibus magis centralibus, maculis tessellatim dispositis.

This shell is more broad and rounded than *T. discors*, the umbones are more central, and the colouring is arranged in spots so as to give a tessellated appearance.

West coast of Mexico. *Say*.

72. TAPES STRAMINEA (pl. cli. f. 151), *Conrad*, — ?

T. testâ *T. gratæ* simili, sed costellis radiantibus, medio partim evanidis.

The ribs, instead of being sharp in the middle of the shell as in *T. grata*, are as it were worn out, and that in living specimens.

Locality unknown.



## MONOGRAPH OF THE GENUS

### CLEMENTIA.

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*Fam. Veneridæ.*

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*Char. Gen. CLEMENTIA, Gray.* Testa æquivalvis, inæquilatera, tenuis. Cardio dentibus in valvâ sinistrâ uno erecto antico, duobus obliquis laminatis posticis; in valvâ dextrâ duobus erectis anticis, uno bifido laminato postico; in utrâque valvâ areâ trigonâ ante dentes positâ. Impressiones musculares duæ; impressio pallii sinu magno.

The very thin, light character of the *Venus papyracea*, and the peculiar form of its hinge, constitute the reasons given for its separation from the genus *Venus*. The hinge is thin, having one anterior erect tooth, and two posterior laminated teeth in the left valve locking into two anterior erect teeth, and one posterior laminated tooth in the right, with a triangular area in front of the teeth in each valve. The sinus in the impression of the mantle is deep.

1. CLEMENTIA PAPYRACEA (pl. cli. f. 155), *Gray, Wood, Suppl. pl. 2. f. 8.*

C. testâ obliquè ovali, inflatâ, albâ, posticè obliquè subacuminatâ, anticè brevi, subrotundatâ; margine dorsali declivi, subexcavato; lunulâ indistinctâ, impressâ; margine ventrali arcuato; undis concentricis latis ad umbones elevatis, prope marginem ventralem evanidis.

Obliquely oval, swelled, white, rather tapering and acuminate at the back, rather short and rounded in front, concentrically undulated with broad ridges, which are large and conspicuous near the umboes, but almost disappear near the ventral margin.

New Holland.

2. CLEMENTIA SIMILIS (pl. cli. f. 156), *Sowerby, jun.*

C. testâ parvâ, *C. papyraceæ* simili, sed rectiusculâ, anticè paululum subtruncatâ, posticè haud tantum attenuatâ.



Of a less oblique form than *C. papyracea*, rather more square in front and less attenuated at the back.

San Nicolas, island of Zebu, Philippines. *Cuming*.

3. CLEMENTIA GRANULIFERA (pl. cli. f. 154), *Sowerby, jun.*

*C. testâ subrhomboideâ, albâ, minutè sulcis obliquè decussatis granulatâ.*

Of an oblong form, rather truncated, white; the external surface cut into small diamond-shaped granules by minute sulci crossing each other obliquely.

Bay of Manila; sandy mud, four to six fathoms. *Cuming*.

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114. *T. denticulata*, 53, *Sb., j.*  
 115, 115\* — *decussata*, 52, *Linn.*  
 116, 117. — *substriata*, 56, *Mont.*  
 118. — *Dombeii*, 62, *Lamk.*

Fig.

119. *T. subquadrata*, 58, *Sb., j.*  
 120. — *Lajonkarii*, 57, *Payr.*  
 121, 122. — *corrugata*, 42, *Gmel.*  
 123. — *opaca*, 45, *Sowb.*  
 124, 125. — *purpurata*, 48, *Sb., ju.*  
 126. — *lithoida*, 47, *Jonas.*  
 127. — *maxima*, 46, *Phil.*  
 128. — *Cumingii*, 41, *Sb., ju.*  
 129. — *dactyloides*, 43, *Sb., j.*

## PLATE CLI.

- 130, 131. *T. Bruguieri*, 60, *Hanl.*  
 132. — *galactites*, 59, *Lamk.*  
 133-138. — *variegata*, 61, *Hanl.*  
 139-141. — *Philippinarum*, 54, *A.*  
 142, 143. — *tessellata*, 66, *Adams.*  
 144. — *lima*, 67, *Sowb., jun.*  
 145. — *fusco-lineata*, 69, *Sb.*  
 146, 147. — *Indica*, 55, *Hanl.*  
 148-150. — *discors*, 68, *Sowb.*  
 151. — *straminea*, 72, *Conrad.*  
 152. — *grata*, 71, *Say.*  
 153. — *tricolor*, 70, *Sowb.*

## CLEMENTIA.

154. *C. granulifera*, 2, *Sb., jun.*  
 155. — *papyracea*, 1, *Gray.*  
 156. — *similis*, 3, *Sowb., jun.*

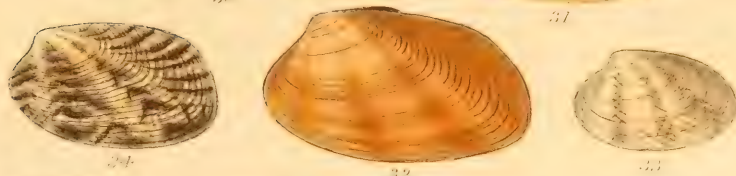












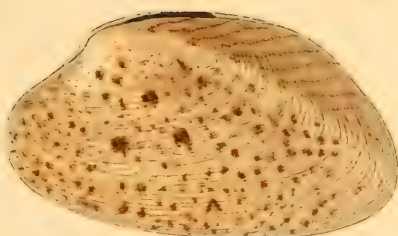




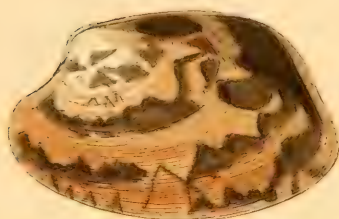




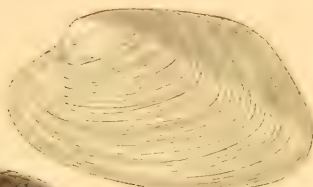
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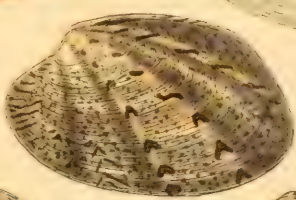
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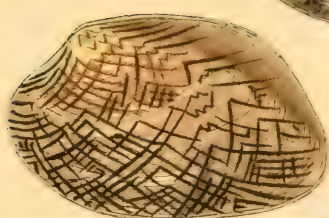
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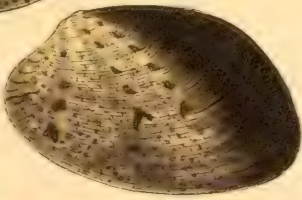
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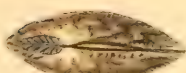
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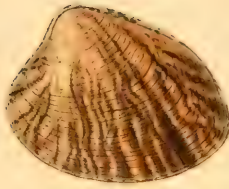








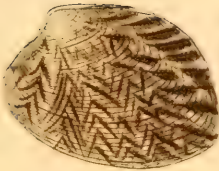
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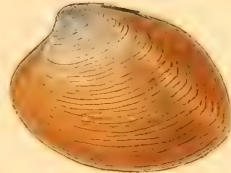
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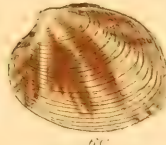
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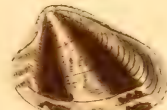
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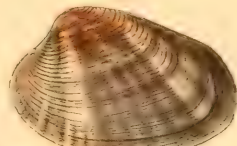
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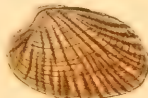
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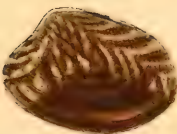
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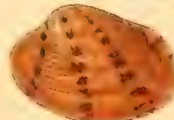
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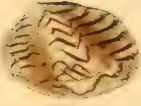
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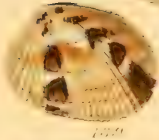
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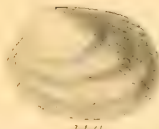
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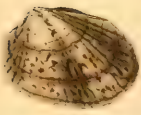
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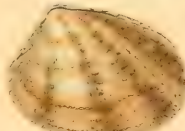
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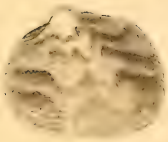
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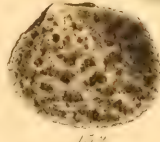
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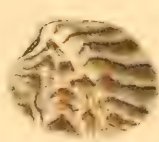
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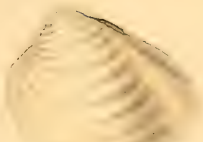
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## MONOGRAPH OF THE GENUS

### V E N U S .

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*Fam. Veneridæ.*

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*Char. Gen.* Testa æquivalvis, inæquilateralis, plerumque ovalis seu orbicularis; impressionibus muscularibus duabus subreniformibus; pallii impressione plerumque posticè plus minus sinuatâ; ligamento externo; lunulâ impressâ; cardine dentibus duobus et tribus cardinalibus.

In the *Cytherææ* there is a lateral tooth near, and anterior to, the diverging cardinal teeth; this is wanting in most of the true *Veneres*, and although in the orbicular group, which has been separated under the generic name "*Dosina*," a slight indication exists of a similar tooth, it is so rudimentary as to be almost imperceptible. The genus includes some very different-looking groups, which yet pass so gradually into each other as to render a division into distinct sections impracticable. All the species however, from *V. puerpera* to *V. gallina*, have a crenulated inner margin, and the few from *V. striata* to *V. æquilatera* have it smooth.

1. VENUS PUERPERA (pl. clii. f. 1, 2), *Linn. Mantissa*, p. 545. Venus reticulata.

V. testâ ponderosâ, ventricosâ, subrotundatâ, sulcis planulatis radiantibus et costellis concentricis anticè crassiusculis submoniliferis erectis posticè sublaminatis decussatâ; pallidè fulvâ, fusco variegatâ et purpureo (posticè præcipuè) obscurè radiatâ, intus posticè purpureâ; latere postico magno, subtruncato; margine dorsali elevato, arcuato, longitudinaliter plicato; latere antico brevissimo, umbonibus depressis; lunulâ magnâ, lineâ impressâ circumscriptâ; margine ventrali intus crenulato.

Thick, ventricose, rather rounded, with flattened radiating riblets, crossed by rather thick concentric ribs, which are inclined to be laminar at the hinder part of the shell, and beaded or scalloped



in front, the swell of each scallop being towards the ventral margin. The dorsal edge is raised and arched; the anterior side very short, with the umboes bending downwards; the lunule large, and defined by a deep suture. In all the species of this group the inner margin is crenulated. The colour is pale fawn, variegated with light and dark brown, with one or two broad rays, and the back a dull purple; a large tinge of purple at the hinder part of the interior. There is also a large white shell in Mr. Cuming's collection, almost denuded of its concentric ridges, which must be referred to this species.

Island of Luzon, Philippines. *Cuming*.

2. VENUS MAGNIFICA (pl. clii. f. 5), *Sowerby, jun.*

*V. testâ rotundatâ, ponderosâ, sulcis radiantibus planulatis et costellis concentricis distantibus crassiusculis undulatis posticè obsoletis decussatâ; pallide fulvâ, ad umbones fusco variegatâ, prope marginem ventralem purpurascente, fasciis concentricis purpurascentibus ornatâ, intus albâ; margine dorsali angusto, uniplicato, rectiusculo; umbonibus elevatis, rotundatis; latere antico brevi; lunulâ magnâ, distinctâ.*

This shell has not the inferior purple patch of *V. puerpera*, it is more rounded and less oblique, the umboes are rounded and elevated, the dorsal margin is not arched, and concentric ridges appear naturally obsolete. The figure in the 'Encyclopædia' (pl. 278. f. 1) gives a better idea of our shell than it does of *V. puerpera*, while that in Chemnitz (f. 388, 389) represents the latter exactly.

Island of Ticao, Philippines. *Cuming*.

3. VENUS LACERATA (pl. clii. f. 3, 4), *Hanley, Sp. of Shells, Appendix Wood's Supplement, pl. xvi. f. 23.*

*V. testâ tenui, ventricosâ, rotundatâ, albâ, pallidè fulvo-variegatâ, sulcis numerosis planulatis radiantibus et costellis numerosis concentricis anticè undulatis posticè laminatis et acutè laqueatis decussatâ; margine dorsali angusto, paululum arcuato, elevato, longitudinaliter plicato; margine ventrali anticè ascendente; lunulâ magnâ, impressâ.*

In form more like *V. magnifica* than *V. puerpera*; a much lighter shell than either; the ribs in both directions more numerous, and very delicately and sharply fluted and laminated at the back.

Island of Zebu, Philippines. *Cuming*.



4. *VENUS COSTELLATA* (pl. cliii. f. 14), *Sowerby*, Pro. Zool. Soc. 1835, p. 42. *Dosina antiqua*, *Gray*.

"V. testâ obovatâ, turgidâ, fuscescente, costis lamellosis reflexis posticis magis eminentibus concentricis ornatâ, lineis radiantibus impressis albis decussatâ; impressione cordiformi anticâ distinctâ, marginibus medianis elevatiusculis, intus albâ; margine ventrali crenulato."

Of a more depressed, oval form than others of the same group, the concentric ridges rather obsolete in the centre, close and laminated at the posterior side, and close and undulated at the anterior side of the shell.

Valparaiso, Chili, and Callao, Peru; in coarse sand, six to fifteen fathoms. *Cuming*.

5. *VENUS LISTERI* (pl. clii. f. 7, 8, 9), *Gray* (*Dosina*) in *Analyst*, 1838. *Encyc. Méth.* pl. 278. f. 2.

V. testâ ovali, subquadratâ, ponderosâ, sulcis numerosis planulatis radiantibus et costellis concentricis numerosis anticè crenulatis reflexis crassis posticè erecto-laminatis laqueatis decussatâ, pallidè fulvâ, fusco-variegatâ; latere postico elongato, posticè truncato; margine dorsali recto, uniplicato; latere antico brevi; lunulâ magnâ, suturâ circumscriptâ.

Of an oblong truncated form, with the hinge-line nearly straight (not arched as in *V. puerpera*); the ridges in both directions are more numerous, and the concentric ones more laminar, than in *V. purpurea*. The latter character is however sometimes lost, as in the large, probably aged, specimen represented by fig. 8. The figure in the *Encyclopædia* is very exact for the type.

Philippines, *Cuming*. Australia.

6. *VENUS CHEMNITZII* (pl. clii. f. 6), *Hanley*, Sp. of Shells, App. Wood's Suppl. pl. 16. f. 20.

V. testâ *V. Listeri* simili, sed costellis concentricis tenuibus omnino laminatis acutè laqueatis colore fusco angulatim variegatâ.

Resembling *V. Listeri*, excepting in the character of the concentric ridges, which are thin, laminated throughout, and fluted in the same manner as in the hinder side of the shell in *V. lacerata*. The brown colour is arranged in beautiful zigzag markings.

Island of Ticao, Philippines. *Cuming*.



7. VENUS MULTICOSTATA (pl. clii. f. 10), *Sowerby*, Pro. Zool. Soc. 1835, p. 22.

V. "testâ ellipticâ, ventricosâ, crassâ, concentricè multicostatâ; costis reflexis, crassis, anticè undulatis, medio crenatis, posticè alternatim interruptis, subirregularibus, subundulatis; margine dorsali rectiusculo, ventrali rotundato; impressione cordiformi anticè distinctâ."

Of the same form as *V. Listeri*, but with ribs very thick and reflected at the anterior, undulated, in the middle crenulated, and at the posterior rather irregular, alternately interrupted, and very slightly undulated.

Panama Bay; in coarse sand at low water. *Cuming*.

8. VENUS RESTICULATA (pl. cliii. f. 23), *Sowerby, jun.*

V. testâ ponderosâ, ventricosâ, rotundatâ, albâ, prope umbones subradiatim maculatâ, sulcis radiantibus et costis concentricis noduliferis validis posticè sublaminatis numerosis decussatâ; margine dorsali subarcuato, plicato; lunulâ magnâ, laminatâ; margine ventrali crenulato.

This shell is much rounder in form than *V. multicostata*, and the ribs are more universally crenulated. Both the species differ from *V. puerpera* in the thickness and closeness of the ribs.

East Indian Islands.

9. VENUS LAQUEATA (pl. cliii. f. 15), *Sowerby, jun.*

V. testâ ovali-subquadratâ, ventricosâ, costellis radiantibus duplicatis et costellis concentricis distantibus erectis laminatis latis acutè laqueatis decussatâ, albâ, seu pallidè fulvâ, obscurè triradiatâ; margine dorsali rectiusculo, valvæ dextræ laminato, alteram superante, valvæ sinistræ subplanulato; lunulâ magnâ, laminatâ; suturâ circumscriptâ.

Oblong, rather truncated and very ventricose, with the concentric ribs deep, laminated and beautifully scalloped. Those of *V. Chemnitzii* present a very miniature likeness of them.

Swan River, Australia. *Jukes*.

10. VENUS RETICULATA (pl. cliii. f. 11, 12, 13), *Linn.*, Mus. Ulr. p. 503. V. corbis, *Lamarck*, Anim. sans vert. sp. 4. Chemn. f. 382, 383.

V. testâ obliquè ovali-suboblongâ, albâ vel fulvâ, fusco vel rubro variegatâ, costellis radiantibus rotundatis et costellis concentricis



reflexis crassis anticè et medio acutè noduliferis posticè sublaminiatis laqueatis decussatâ; latere postico subobliquè truncato; margine dorsali subelevato, rectiusculo; latere antico brevi; lunulâ impressâ; cardine dentibus aurantiis.

One peculiarity of this species is the deep orange-colour of the teeth; another, the thick angular nodules formed on the concentric ridges at the points of decussation.

Philippines, *Cuming*. Madagascar.

11. VENUS MONILIFERA (pl. clii. f. 19), *Sowerby, jun.*

V. testâ subcompressâ, subquadratâ, fulvâ, fusco-rubescente radiatim maculatâ et posticè angulatim sublineatâ, costellis moniliferis radiantibus et costellis concentricis crassiusculis crenulatis decussatâ; margine dorsali elevato, rectiusculo; latere antico breviusculo, subquadrato, medio depresso; latere postico truncato, subangulato; cardine dentibus aurantiis.

Notwithstanding the orange teeth, this shell differs so much in its compressed, square shape, and in the beaded elevation of the radiating ridges resulting from the comparative depression of the concentric ones from *V. reticulata*, that I think the distinctness of this species will be readily admitted. The largest of the three specimens is from the collection of Mr. Gubba.

Puerto Galero, island of Mindoro, Philippines. *Cuming*.

12. VENUS PYGMÆA (pl. clvi. f. 69-72), *Lamarck, Anim. sans vert. Venus*, no. 3.

V. testâ parvâ, compressâ, ovali, costellis radiatis et laminis crenulatis concentricis cancellatâ, albâ, fusco sparsim variegatâ vel rubro radiatâ; margine dorsali, excavato, nigro-lineato, valvæ dextræ laminato, valvæ sinistræ planulato; lunulâ impressâ.

A small species, presenting a miniature resemblance to *V. reticulata*, but longer and flatter in proportion. The area of the hinge is wide, hollow, and in one valve smooth. Two specimens from the Philippines have a few brown spots on a white surface, and another, worn, has broad rays of red; in all, the hinge-area is marked with strong transverse black lines.

Honduras Bay.

13. VENUS LAMARCKII (pl. cliii. f. 20, 21), *Gray*, in *Brit. Mus.* V. subrostrata, *Reeve*, t. 68. f. 4. V. cancellata, *Chemn.* f. 306.

V. testâ ovali-subtrigonâ, ventricosâ, albâ, fusco obscure trira-



diatâ et maculatâ, intus roseâ, costellis radiantibus anticè duplicatis et laminis erectis, anticè reflexis, supernè crenulatis, subtus laqueatis, posticè lobatis decussatâ; latere postico sublobato, subrostrato, margine dorsali declivi, planulatim excavato; latere antico breviusculo, margine rotundatim elevato; lunulâ radiatim striatâ, fuscâ.

One of the most beautiful species in the group, distinguished by its elegantly sculptured concentric laminæ, with duplicate radiating ribs, and by the beautiful rose-colour of the interior.

Singapore. China.

14. VENUS NODULOSA (pl. cliii. f. 16), *Sowerby, jun.*

V. testâ ovali-subtrigonâ, albâ, fusco obscure triradiatâ et maculatâ, intus roseâ, costellis radiantibus anticè duplicatis et laminis erectis anticè validè reflexis supernè costellatis subtus noduliferis posticè lobatis et expansis decussatâ; latere postico elongato, subrostrato; margine dorsali declivi, planulatim excavato; latere antico breviusculo, margine rotundatim elevato; lunulâ depressâ, radiatim striatâ, fuscâ.

The shell is rather longer and flatter than *V. Lamarekii*, and the concentric laminæ are coiled round and thickened so as to present their under surface in round nodules. It may be only a very remarkable variety. I am acquainted with several specimens, one of which is in Mrs. Colonel Cathcart's collection, and another in that of Mr. Taylor.

Locality unknown.

15. VENUS ORNATISSIMA (pl. cliii. f. 24), *Broderip*, Pro. Zool. Soc. 1835, p. 44.

"V. testâ subglobosâ, radiatim creberrimè costatâ, lamellis concentricis, valde elevatis, crispo-plicatis, spadiceo-albente, intus albâ, limbo interno crenulato."

More rounded than *V. Lamarekii*, with the laminæ broad, distant, and beautifully fringed in the front as well as the back part of the shell, and the radiating ribs duplicate from the middle to the border; colour brownish-white.

Panama; in sandy mud. *Cuming*.

16. VENUS SIMILLIMA (pl. cliii. f. 17, 18), *Sowerby, jun.*

V. testâ ovali, crassâ, sordidè albâ, costellis duplicatis radiatâ, laminis concentricis laminatis numerosis anticè reflexis crenulatis



posticè divaricatim striatis costellatâ; umbonibus elevatis; lateribus declivibus; margine dorsali complanatum excavato; lunulâ impressâ.

A well-sculptured shell similar to the preceding, but having the concentric ridges very numerous and (in the front part of the shell) reflected; at the back of the shell they are spread and striated divergently. Ligamental area very smooth and deeply excavated. Fig. 17 is from a specimen in Mr. Cuming's collection; f. 18 is from one in Mr. Hanley's collection, which I place rather doubtfully with it.

California.

17. VENUS GNIDIA (pl. cliv. f. 25), *Broderip et Sowerby*, Zool. Journ. vol. iv. p. 364.

"V. testâ æquivalvi, subventricosâ, liris concentricis muricatis distantibus, striis radiantibus decussantibus, anticè spinosioribus."

The concentric ridges are very distant and produced into a series of broad spines; their under side is ribbed in correspondence with the radiating ribs, which are alternately single and duplicate. The hinder side of the shell is rather pointed, with the dorsal margin considerably sloping.

Pacific Ocean.

18. VENUS AMATHUSIA (pl. cliv. f. 26, 27), *Philippi*, Abbild. t. 11. f. 4. V. encausta, — ?

"V. testâ cordato-triangulari, tumidâ, crassâ, longitudinaliter sulcatâ, transversim rugosâ; rugis distantibus, æqualibus, integris; areâ oblongâ, depressâ; lunulâ latè cordatâ."

The shell here figured (f. 26), from Mr. Hanley's collection, perfectly agrees with the figure in Philippi above quoted; it is evidently an ill-developed and much-worn shell. Our second figure (f. 27) however represents a perfect shell, from Mr. Cuming's collection; these two are brought together by intermediate specimens, and present a species so closely resembling *V. Gnidia* as to render the separation extremely doubtful. The concentric scalloped ridges are much less prominent, and are covered on the under side by a brown, shining enamel; while those of *V. Gnidia* are of the same texture as the other parts of the shell. This may possibly indicate a difference in the habit of the animal.

California.



19. *VENUS CANCELLATA* (pl. cliv. f. 28-31), *Linn. Syst. Nat.* 12th edit. p. 1130. *V. ziczac*, *Linn. Syst.* 10th edit.? *V. Dysera*, *Chemn.*, tab. 28. f. 287-8-9-90. *Mercenaria variabilis*, *Schum.*

*V. testâ cordato-subtrigonâ, crassâ, plerumque griseâ, fusco angulatim variegatâ, intus posticè violaceâ, costellis duplicatis radiatâ, varicibus concentricis crassiusculis reflexis crenulatis in-æquidistantibus cinctâ; latere postico declivi, subrostrato; arcâ dorsali planatim excavatâ, fuscâ vel literatâ; latere antico breviusculo, rotundato; lunulâ radiatim striatâ, fuscâ.*

Rather heart-shaped, triangular, thick, radiately double-ribbed, girt with reflected, rather thick, crenulated varices at irregular intervals. The hinder side is rather pointed; the dorsal area much excavated and flat; lunule striated, large, and generally dark. There is generally a posterior patch of purple inside. This very common shell is generally of a grey colour, variously marked with angular lines and patches of brown.

St. John's, *Hartweg*. Honduras Bay, *Dyson*.

20. *VENUS COMPTA* (pl. cliv. f. 32, 33, 34), *Broderip*, *Pro. Zool. Soc.* 1838, p. 43.

"*V. testâ subtrigona, planiusculâ, crassâ, lamellis concentricis lateraliter crenulatis crassiusculis radiatim creberrimè costellatâ, albente, lineis flavo-castaneis inscriptâ; arcâ posticâ incisâ, spaldiceo-strigatâ; lunulâ pallidiore; intus albâ, limbo crenato.*"

Resembling *V. cancellata*, and with difficulty separated from it. It is however a flatter shell, more spread at the sides, where the radiating striæ are divergent; and the concentric ribs less reflected and more laminar.

In coarse sand and mud, seven fathoms. Bay of Sechura, Peru.

21. *VENUS SUBROSTRATA* (pl. cliv. f. 39), *Lamarek*, *Anim. sans vert.* no. 13. *V. neglecta*, *Sowerby*, *Zool. Beechey's Voy.* pl. 41. f. 8.

*V. testâ cordato-subtrigonâ, posticè subtruncatâ, crassâ, pallidè fulvo-griscescente, fusco angulatim variegatâ, intus albâ, costellis duplicatis radiatâ, varicibus concentricis numerosis, crenulatis, laminatis, subæquidistantibus; latere postico declivi, subtruncato; arcâ dorsali planulatim excavatâ, fusco-literatâ; latere antico brevi; lunulâ magnâ, striatâ, fuscâ.*



A more truncated shell than *V. cancellata*, with the concentric ridges more equidistant and numerous.

Found in sandy mud on the coast of Central America.

22. *VENUS UNDATELLA* (pl. cliii. f. 22), *Sowerby*, Pro. Zool. Soc. 1835, p. 22.

"*V. testâ rotundato-ellipticâ, crassâ, albidâ, fusco maculatâ, punctatâ, et undatim pictâ; costellis radiantibus confertis, aliisque decussantibus, undulatis, sublamellosis; latere antico brevior, postico subdeclivi; marginibus depressis; margine ventrali rotundato, intus crenulato.*"

The next remove, after *V. subrostrata*, from *V. cancellata*. It is more broad and truncated, with the dorsal margin less sloping, the edges of the right valve strongly overlapping, that of the left strongly marked with transverse bands of black; the concentric ridges numerous, undulated, and crowded near the margin.

Found on the shore at the island of Tres Marias, Gulf of California.

23. *VENUS SUBIMBRICATA* (pl. cliv. f. 35-38), *Sowerby*, Pro. Zool. Soc. 1835, p. 21.

"*V. testâ cordato-subtrigonâ, crassâ, fusco albidoque lineatim radiatâ vel variegatâ; costellis radiantibus confertis, costis subimbricatis decussantibus, prope umbonem lamelliferis; latere antico brevior, impressione cordatâ anticâ magnâ; latere postico longior, declivi, planulato, depresso; margine ventrali rotundato, intus denticulato.*" Variat testâ parvâ, longior, costis decussantibus omnibus lamelliferis.

A very variable shell, of the same group as *V. cancellata*, but in which the concentric laminæ are only seen near the umboes, and afterwards exchanged for more or less raised and irregular undulations in the same direction.

Puerto Portrero, Central America. The extreme variety (f. 38), in Mr. Gubba's collection, is from California.

24. *VENUS CALIFORNIENSIS* (pl. cliv. f. 40, 41), *Broderip*, Pro. Zool. Soc. 1835, p. 43. *V. leucodon*, *Sowerby*, ib., inclusa.

"*V. testâ globosâ, crassâ, albente, concentricè multilamellosâ, lamellis crassiusculis, lateraliter subcrenulatis, costis creberrimis cancellatâ; arcâ posticâ infossâ, grandî; lunulâ magnâ, tumente; intus albâ, impressionibus muscularibus violaceo-fucatis; limbo interno crenato.*"



A large, thick, cancellated shell, the reflected concentric ribs of which become less and less distant towards the ventral margin. The *V. leucodon* has the same character of ribs, the same broad, flat, excavated dorsal area, the same obliquely cordate form, and only differs in having the hinder part of the shell of a dark colour, and a dark rim continued round the inner margin around and between the white denticulations.

Found in coarse sand at low water, in the Gulf of California. *Cuming*.

25. *VENUS CALLOSA* (pl. cliv. f. 44, 55), *Conrad*, Journ. Ac. Nat. Sc. vol. vii. p. 252.

*V. testâ ponderosâ, obliquè cordatâ, subovali, ventricosâ, albâ, grisescente, posticè fuscâ, intus posticè purpureâ; costellis radiantibus striatis planulatis et costellis concentricis interruptis irregulariter squamosis anticè et medio decussatâ, posticè planatâ, prope marginem divaricatim striatâ; latere postico subrostrato; margine dorsali declivi, paululum depresso; latere antico brevi, rotundato; lunulâ vix distinctâ; margine ventrali rotundato, prope angulum posticum paululum emarginato.*

This very thick, obliquely heart-shaped shell is remarkable for the flattened scale-like nodules, formed by the crossing of the flat-tish radiating ribs and the concentric layers.

Sandwich Islands, and California.

26. *VENUS FLUCTIFRAGA* (pl. cliv. f. 42, 43), *Sowerby, jun.*

*V. testâ ponderosâ, subobliquè rotundatâ, albâ, concentricè purpureo distanter fasciatâ, costellis radiantibus posticè et anticè majoribus et costellis interruptim fluctuatis intersectâ; latere postico subangulato; margine dorsali rotundato, subarcuato, maculato, paululum depresso; margine ventrali intus crenulato, purpureo.*

Named as above from the character of the concentric ridges, which are fluctuated and as it were broken up on the surface; the shell is solid, rounded, and nearly white, with several bands of livid colour; the inside is purple at the border, and about the posterior impressions: altogether not unlike *V. callosa*, but rounder.

Australia.

27. *VENUS GRANULATA* (pl. clv. f. 47, 48, 49), *Gmel.* n. 33. *Venus violacea*, *Gmel.* 34? *Venus "marica spuria," Chemn. Conch.* vol. vi. t. 30. f. 313. *V. entobapta, Jonas*, in *Menke, Zeitsch. für Malac.* 1845, p. 63.



V. testâ subrotundatâ, crassiusculâ, griseâ fusco-nigrescente variegatâ, costellis ad latera majoribus omnino squamuliferis anticè præcipuè radiatâ, intus posticè et ad marginem violaceâ; latere antico brevi; lunulâ fuscâ, striatâ; latere postico subtruncato; areâ dorsali excavatâ, planulatâ, nigro-literatâ.

In this species, which is rounder than the preceding, the radiating ribs are crossed by scales which are not continued in the interstices. The markings are dark and variegated, and the inside is painted with purple at the back and near the margin.

West India Islands.

28. VENUS STUTCHBURI (pl. clv. f. 50, 51), *Gray*, in Wood's Suppl. pl. 2. f. 4. V. Zelandica, *Quoy*, Ast. t. 8. f. 5, 6?

V. testâ ovali, obliquè cordatâ, altâ, crassâ, ventricosâ, fulvâ, intus posticè purpureâ, radiatum planulatum costatâ, costellis posticè subobsoletis, anticè et prope umbones costellis crenulatis concentricis cinctâ.

A very ventricose shell, with the radiating ribs broad and flat, crossed by undulating riblets, which only reach from the anterior to the middle of the shell, excepting near the very tumid umboes, where they reach all across at regular intervals. I am doubtful whether *V. cardioides* is a variety of this species or of *V. pectorina*.

New Zealand.

29. VENUS COLUMBIENSIS (pl. clv. f. 53, 54), *Sowerby*, Pro. Zool. Soc. 1835, p. 21.

"V. rotundato-ellipticâ, crassâ, cinereo albidoque variegatâ, radiatum costatâ; costis plurimis, planulato-rotundatis, quam interstitia duplo latioribus; latere antico brevior, costis decussatim squamosis, squamulis brevibus, obtusis; lateris postici costis rugosis; partis intermediæ costis sublævibus, intus albicante."

This species stands alone, with its deep grooves and broad flattened radiating ribs, which are crossed at the sides by concentric rows of scale-like prominences.

St. Elena, West Columbia. *Cuming*.

30. VENUS PECTORINA (pl. clv. f. 56, 57), *Lamarck*, Anim. sans vert. (Venus) no. 15. Var. V. cardioides, *Lamarck*, no. 18?

V. testâ subtrigonâ, ventricosâ, crassâ, fulvâ, posticè et ad aream dorsalem fusco angulatim maculatâ, intus albâ, costellis acutiusculis alternis minoribus radiatâ, striis elevatis concentricis cancel-



latâ ; latere postico declivi, supernè planulatim excavato, subtruncato; latere antico rotundato; lunulâ magnâ, striatâ, albâ.

The alternate radiating ribs are more prominent than either the intermediate ones or the radiating striae, giving a pectinated appearance to the shell.

America.

31. *VENUS ASPERRIMA* (pl. clv. f. 57, 58), *Sowerby*, Pro. Zool. Soc. 1835, p. 42.

"V. testâ obovatâ, crassiusculâ, opacâ, albicante radiatim costellatâ; costellis numerosis, decussatis, asperis; latere antico brevior; margine dorsali postico declivi, rectiusculo; impressione cordiformi anticâ elongatâ."

Broader, flatter, more truncated posteriorly and more sharply ribbed and decussated than *V. pectorina*.

In fine sand at low water; at the island of Lobos, Peru. *Cuming*.

32. *VENUS HISTRIONICA* (pl. clv. f. 52), *Sowerby*, Pro. Zool. Soc. 1835, p. 41.

"V. testâ obovatâ, pallidè fulvâ, radiatim costellatâ, costellis plerumque duplicatis, concinnè decussatis, asperis, maculis interruptis fuscis irregularibus radiatim pictâ; margine dorsali rectiusculo, posticè subangulato; impressione cordiformi anticâ parvâ, intus purpurascens; margine ventrali denticulato."

More rounded and flatter than *V. pectorina*, with the ribs more equal, duplicate and rounded; the markings consist of several rays of fantastically-shaped patches of brown.

Found in sandy mud at a depth of thirteen fathoms, at Guacomo, Central America. *Cuming*.

33. *VENUS INTERSECTA* (pl. clv. f. 59, 60), *Sowerby*, *jun.*

V. testâ ovali, ventricosâ, albâ vel griseâ, fusco-cinerascente omnino pictâ vel posticè maculatâ, intus albâ, costellis acutiusculis tripartitis radiatâ, striis elevatis concentricis intersectâ; latere postico subdeclivi, subacuminato; areâ dorsali angustâ, excavatâ, valvæ dextræ fusco-albo maculatâ, valvæ sinistræ fusco nigrescente; latere antico breviusculo, rotundato; lunulâ fuscâ, radiatim striatâ; dente cardinali antico permagno.

In texture nearly resembling *V. pectorina*; in shape approaching *V. crenifera*, yet larger and less pointed than that species. In the specimens I have seen, the dorsal area of the right valve is



angularly spotted with white, while that of the left is of the same dark colour as the lunule and a portion of the hinder part of the shell.

Puerto Puero, Central America. *Cuming*.

34. VENUS CRENIFERA (pl. clvi. f. 73, 74), *Sowerby*, Pro. Zool. Soc. 1835, p. 43. V. elevata? *Say*. V. radiata, *Chemn.* t. 36. f. 386?

"V. testâ ellipticâ, asperâ, albicante-fusco maculatâ et variè pictâ; lamellis concentricis brevibus, confertis, striis radiantibus confertissimis decussatis; margine ventrali crenulato; dente cardinali antico magno."

Except in rare cases the fringed concentric ridges of this rather beaked shell are raised very slightly over the radiating striæ, which are arranged in groups of three; several of the groups more distinct and distant at the anterior side. The lunule is distinct, striated, and generally dark in colour; the dorsal area excavated, smooth, and strongly marked with brown. The surface is generally marked by radiating broad bands of zigzag markings.

The specimens were found in sand at low water at Payti, Peru. *Cuming*.

35. VENUS DECORATA (pl. clvi. f. 77, 78), *Broderip et Sowerby*, Zool. Journ. vol. v. p. 49. V. bella, *Jonas*, Philippi, Abbild. t. 4. f. 4.

"V. testâ cordato-trigonâ, latere postico productiore, albâ, liris longitudinalibus crenulatis sulcisque radiantibus decussatis granulâ; margine crenulato."

This elegantly sculptured shell is characterized by radiating ribs, the three posterior of which are larger than the others; they are crossed by concentric fringed varices, which are scalloped as they pass over them. In the darkly-coloured variety the lunule and dorsal margin are of a very dark colour. The form is rather cordate, acuminate at the back.

West Indies.

36. VENUS IMBRICATA (pl. clvi. f. 81, 82), *Sowerby, jun.*

V. testâ ovali-subcordatâ, parvâ, albidâ, costis validis acutè laminatim imbricatis radiatâ; latere postico angulato, fusco, declivi, acuminato, latere antico brevi; lunulâ parvâ, fuscâ, striatâ; umbonibus (intus quoque) purpurascens. Variat costellis fuscis interstitiis albis.



Formed like *V. decorata*, but instead of the continuous concentric ribs, it has only leafy imbrications upon the distinct radiating ones. The specimen kindly supplied by Mr. Hanley is very delicately coloured with a purplish tint on and within the umboes, a light brown on the lunule and posterior area, with a pink tinge upon the ribs. Mr. Cuming's specimen has dark brown ribs with white interstices.

Locality unknown.

37. *VENUS COCHINENSIS* (pl. clvi. f. 79, 80), *Thorpe*,—?

V. testâ ovali-subcordatâ, parvâ, posticè subangulatâ, pallidè fulvâ vel griseâ, prope umbones lividâ, posticè validè coloratâ, costis squamiferis rotundatis validis radiata, interstitiis angustatis.

Like *V. imbricata*, but flatter, with the ribs less elevated, and rather granulated than imbricated.

Cochin China.

38. *VENUS SQUAMOSA* (pl. clvi. f. 83, 84), *Linnaeus*, Syst. Nat. p. 1133. *Cytheræa squamosa*, *Lamarck*, no. 75.

V. testâ subtrigonâ, ventricosâ, albo-grisescente, partim obscure fuscâ, costellis duplicatis moniliferis prope marginem magis numerosis radiatâ, rugis interruptis concentricis noduliferis cinctâ; latere postico productiore, contracto, rostrato; margine dorsali declivi, fusco, planulatim excavato; latere antico breviusculo, rotundato; lunulâ magnâ, rotundatâ, fuscâ, striatâ; margine internè crenulato. Variat lunulâ, areâ dorsali, et inter costas castaneâ.

This common, triangular, rostrated shell has an appearance of scales formed by the concentric undulations crossing the radiating duplicate costæ.

Bay of Manilla, in sandy mud. *Cuming*.

39. *VENUS FLEXUOSA* (pl. clvi. f. 85, 86), *Linnaeus*, Syst. Nat. p. 1133. V. impressa, *Anton*, Hanley, Wood's Supp. pl. 16. f. 27.

V. testâ subtrigonâ, ventricosâ, albâ, fuscescente vel grisescente, immaculatâ, vel nigro interruptim triradiatâ, radiatim striatâ, rugis concentricis crenulatis cinctâ; latere postico productiore, contracto, rostrato, margine dorsali declivi, planulatim excavato, livido; latere antico rotundato; lunulâ lævigatâ, excavatâ; margine interno lævi.

It is not ribbed, but simply striated in the radiating direction.



and the irregular concentric rugæ are finely crenulated as they pass over the striæ. In the preceding species the lunule is striated, in this it is quite smooth. While all the other species of this group have the inner margin crenulated, in this it is perfectly smooth,—an instance showing the extreme difficulty of arranging shells in defined groups.

The radiated variety is from China.

40. *VENUS PUNCTIFERA* (pl. clvi. f. 87), *Gray*, Brit. Mus.

*V. testâ* elongato-subtrigonâ, crassâ, griseâ, radiatim striatâ, concentricè rugiferâ; latere postico angulato, producto, rostrato, ad angulum nodulosim carinato; margine dorsali lævigato, literato; latere antico brevi, subacuminato; lunulâ lævigatâ, literatâ.

More acuminate and lengthened than *V. macrodon*, with a crenulated keel at the posterior angle, and the concentric rugæ continued in the middle of the shell.

Indian seas.

41. *VENUS MACRODON* (pl. clvi. f. 88, 89, 90), *Lamarck* (Cytheræa), Anim. sans vert. no. 73. Var. *Cytheræa lunulata*, *Lamarck*, Philippi (*Venus*), t. 3. f. 10.

*V. testâ* subtrigonâ, crassâ, ventricosâ, flavido-grisescens vel albâ, griseo maculatâ et literatâ, vel fuscâ, ad latera et prope umbones radiatim obscurè striatâ, concentricè rugiferâ, medio planâ; latere postico angulato, producto, rostrato, ad angulum monilifero; margine dorsali declivi, lævigato, nonnunquam literato; latere antico rotundato; lunulâ impressâ, lævi; umbonibus angulatis, elevatis; margine interno crenulato; dente cardinali antico magno.

Shaped like the preceding, but with the umbones more elevated and angular, and the greater part of the central surface smooth; a posterior angle is beaded at the upper part. The grizzled variety is lettered on the dorsal margin and lunule.

Brazil.

42. *VENUS ROSTRATA* (pl. clvi. f. 91), *Sowerby*, jun.

*V. testâ* parvâ, lævi, grisescens, subtrigonâ, concentricè liratâ; latere postico producto, rostrato; latere antico brevi, subacuminato; lunulâ et arcâ dorsali lividis, lævigatis.

A beautiful little shell, similarly formed to the preceding, but smooth, with rather round, concentric ribs.

Locality unknown. Specimens in Mr. Hanley's collection.



43. VENUS OVATA (pl. clvii. f. 99, 100), *Pennant*, British Zool. vol. iv. p. 97. pl. 56. f. 56. Venus pectinula, *Lamarck*, n. 26. Cytheræa ovata, *Fleming*, Brit. Anim. p. 445. Venus radiata, *Philippi*, Moll. Sic.

V. testâ ovali, compressâ, fulvo-griscescente, fusco obscure maculatâ, radiatim costellatâ, costellis longitudinaliter striatis, striis concentricis decussantibus; margine interno crenulato; lunulâ parvâ, striatâ, tumidâ.

This is a flattish, oval, dull-coloured shell, with radiating, striated ribs, which are crossed by decussating striae.

Great Britain, and Mediterranean.

44. VENUS STRIATISSIMA (pl. clvii. f. 103, 104, 105), *Sowerby, jun.* Erycina cardioides, *Lamarck*, Anim. sans vert.

V. testâ ovali, subcompressâ, fulvo-purpurascence, fusco obscure maculatâ, radiatim et concentricè striatâ; striis concentricis, elevatiuseculis, laminatis; latere postico subrostrato, productiore; margine interno denticulato; lunulâ parvâ, striatâ, fuscâ.

A rather fuller but smaller shell than *V. ovata*, with the radiating striae more numerous and equal, and the concentric striae sharp and raised. The hinder part of the shell is slightly beaked.

Australia.

45. VENUS SCABRA (pl. clvii. f. 101, 102), *Hanley*, Sp. of Shells, Appendix, pl. 16. f. 24.

V. testâ ovali-subglobosâ, obscure fuscâ, costellis duplicatis concentricè squamiferis radiatâ; lunulâ scabrâ.

More globose than *V. striatissima* and *V. ovata*, with the radiating striae gathered up, especially near the umboes, into riblets, and crossed by concentric series of sharp scales, which are more elevated at the sides.

New Holland.

46. VENUS COSTELLIFERA (pl. clvii. f. 106), *A. Adams*, Zool. Samarang, Moll. p. 79. pl. 21. f. 18.

V. testâ oblongo-ovatâ, subtrigonâ, subæquilatâ, albâ, rubro sparsim variegatâ, longitudinaliter costatâ; costis confertis, decussatim plicatis, plicis semilunaribus, confertis, posticis squamulosis."

Nearly resembling the coarser variety of *V. ovata*, but the ribs broader, and crossed by semilunar plicæ.

Philippines. *Cuming*.



47. VENUS MARICA (pl. clvii. f. 107-110), *Linnaeus*, 12th edit. p. 1130. *Chemn. Conch.* f. 282-3-4.

V. testâ ovato-subtrigonâ, albâ, vel maculis fuscis angulosis subtrigonis radiatim pictâ, concentricè et radiatim costellatâ; costellis concentricis noduliferis, ad latus posticum alternatim in laminis acutis fimbriatis productis; areâ dorsali magnâ, striatâ, scabrâ, sub-elevatâ; latere antico breviusculo; lunulâ scabrâ, tumidâ, magnâ.

Of a rather trigonal form, with the radiating ribs so strongly decussating the concentric, obtuse laminæ, as to cut them into nodules; at the back of the shell some of these concentric ribs are discontinued, and others of them raised into sharp, produced, fringed laminæ; behind these laminæ is a scabrous area, elevated towards the dorsal margin. The lunule is large and scabrous. The colour is arranged in rows of large angular spots. The species is subject to great variation, particularly as to the degree in which the concentric and radiating ribs modify each other in crossing.

Philippines. *Cuming*.

48. VENUS AUSTRALIS (pl. clvii. f. 111, 112), *Sowerby*, Pro. Zool. Soc. 1835, p. 22.

"V. testâ ovato-subtrigonâ, crassiusculâ, fulvescente, maculis angulosis subtrigonis subradiatim pictâ, concentricè lamellosâ; lamellis concinnis, confertis, tenuibus, obtusis, pulcherrimè radiatim decussatis, prope latera elevatioribus; marginibus dorsali sub-elevato, ventrali rotundato, intus denticulato;" lunulâ parvâ, fuscâ, striatâ.

Of an oval, approaching to trigonal form, with numerous, close, laminar, concentric ribs, finally crenulated by the radiating striæ, and more produced at the posterior side. The front side is the shorter, and has a small chestnut-coloured lunule. The colouring is very beautiful, being arranged in several rays of large angular brown spots. Var. f. 111 is coarser than the other, but not nearly so coarse as *V. marica*.

49. VENUS SPURCA (pl. clvi. f. 92-98), *Sowerby*, Pro. Zool. Soc. 1835, p. 23. V. crassa, denticulata, mesodesma, violacea, *Quoy*, Astr. t. 84. f. 7, 8, 15, 16, 17, 18, 19, 20. Test. jun.? V. cæolata, *Menke*, *Philippi*, *Venus*, t. 5. f. 3. V. spissa, *Wood's Suppl.*

"V. testâ ovatâ, crassâ, sordidè fulvâ, fusco radiatim maculosâ, concentricè subobsoletè costellatâ; costellis obtusis, prope latera subinterruptis; margine ventrali intus denticulato."



Fig 97 is the typical form of a strangely varied series of shells, to which the above names and some others have been given. Fig. 98 is the overgrown and obsolete state, *V. spissa*, Wood's Suppl. pl. 16. f. 44. Fig. 92 represents the young shell, in which may be seen its interstitial radiating striæ, and in which the concentric riblets are laminated at the posterior side. Fig. 95 is an example of zigzag marking. All the varieties are nearly equilateral; in all, the inner edge is crenulated, and some of the concentric ridges interrupted at the sides, and all have a small, narrow, well-defined, chestnut-coloured lunule.

New Zealand, Philippines, etc.

50. VENUS PAPHIA (pl. clv. f. 61), *Linn. Syst. Nat.* p. 1129.

*V. testâ subtrigonâ, crassâ, albâ, fusco-grisescente maculatâ et lineatâ, lævi, costellis magnis rotundatis anticè contractis laminatis posticè abruptè contractis laminatim lobatis cinctâ; latere postico productiore, acuminato; areâ dorsali declivi, latè planulatâ, literatâ, excavatâ; umbonibus productis; latere antico breviusculo; lunulâ concavâ, literatâ; margine interno leviter crenulato.*

This well-known species has the broad, smooth, rounded ribs terminating in front in flat thick laminae, and behind suddenly contracted into broad laminated lobes.

West Indies.

51. VENUS AFFINIS (pl. clv. f. 62) — ? adopted by *Sowerby, jun.*

*V. testâ subtrigonâ, ovali, crassâ, albâ, fusco radiatim maculatâ, lævi, costellis crassis reflexis acutiusculis ad latera productis laminatis posticè abruptè interruptis tum unilobatis cinctâ; latere postico productiore, subacuminato; areâ dorsali declivi, latè planulatâ, literatâ, vix excavatâ; latere antico breviusculo; lunulâ concavâ, literatâ; margine interno leviter crenulato.*

I do not know whether the above name has been published, or by whom it has been proposed, but having found it in MS. I adopt it on the principle of never coining a name when a good one has been used in any way. The *affinity* is to *V. Paphia*, which the species nearly resembles. It is however a more oval shell, the concentric ridges are more extant and laminar throughout, and at the back suddenly interrupted previous to taking a square lobed form; the umboes are not so produced.

Mr. Cuming and Mr. Gubba have specimens which are from Senegal.



52. VENUS SUBRUGOSA (pl. clv. f. 63), *Sowerby*, Genera of Shells, *Venus*, f. 2. *V. subsulcata*, *Menke* (Jay).

*V.* testâ subtrigonâ, crassâ, fulvo-grisescence, fusco quadriradiatâ, ad umbones et ad latera radiatim striatâ, concentricè validè rugis subundatis costellatâ; latere postico longiusculo, subrostrato, margine dorsali planulatim excavato; latere antico rotundato; lunulâ magnâ, lævigatâ; dentibus cardinalibus magnis.

Broader, larger, and less oblique than *V. macrodon*, with very large ribs at the upper part of the shell, which is rayed with brown bands.

West Columbia. *Cuming*.

53. VENUS KELLETTII (pl. clv. f. 64), *Hinds*, Voyage of the Sulphur, Mollusca, p. 65. pl. 19. f. 5.

*V.* "testâ obliquè cordatâ, solidâ, lævigatâ, castaneâ, transversim sulcatâ, seu potius lineis impressis excavatâ, intervallis latitudine variabilibus, ad extremitates laminis munitâ; lunulâ elongatè cordatâ."

An obliquely cordate shell, on the same principle of construction as *V. Paphia*, yet very different. The concentric ribs are broad and flat, crossed near the umboes with impressed striæ, and terminated at each extremity by laminar lobes, the posterior ones not quite reaching the hinder margin. One broad radiating band of a light chestnut-colour, with darker rays, covers all but the sides of this remarkable and beautiful shell.

Island of Guibo, west coast of Veraguas.

54. VENUS PERUVIANA (pl. clv. f. 66), *Sowerby*, Pro. Zool. Soc. 1835, p. 22.

"*V.* testâ obovatâ, crassâ, concentricè costatâ; costis crassiusculis, sublamellosis, anticè reflexis, medio reflexis, fulvo-articulatis, posticè deflexis, tenuioribus; latere postico quam anticum duplo longiore, marginibus depressis, planatis; margine ventrali rotundato, intus lævi."

Oval, concentrically ribbed, with the ribs thick, prominent, laminated, reflected in the middle and till near the back of the shell, there turned downwards with a kind of fold and flattened. In front also they are a little flattened, and turned outwards. The young shell resembles *V. Cypria*.

Ancon, Peru; figured from a very fine specimen in Mr. Cuming's collection.



55. *VENUS DISCREPANS* (pl. clv. f. 65), *Sowerby*, *Pro. Zool. Soc.* 1835. p. 22.

"V. testâ ellipticâ, crassâ, albicante, fusco subradiatim pictâ; latere antico brevior, subproducto, postico subdeclivi; marginibus depressis; costis concentricis posticè lamellosis, medio obtusis, latiusculis, anticè sublamellosis; umbonibus subprominentibus; margine ventrali rotundato, intus denticulato."

"The blunt, rather broad, concentric ribs of the middle part of each valve are speckled with brown on their upper surfaces, and delicately crenulated on their ventral margins." At the sides they are terminated in laminae.

Islay, Peru. *Cuming*.

56. *VENUS CYPRIA* (pl. clvii. f. 113), *Sowerby*, *Pro. Zool. Soc.* 1852, p. 43.

"V. testâ oblongâ, subtrigonâ, concentricè lamellosâ, lamellis crassis, obtusis, posticè tenuioribus, subappressis, albâ, fusco-radiatâ; lineâ dorsali rectiusculâ, declivi; arcâ posticâ latâ, fuscâ; impressione cordiformi anticâ conspicuâ, fuscâ; margine ventrali intus integerrimo."

Smaller and more triangular than *V. Paphia*, with the ribs more elevated, and, instead of being suddenly interrupted, become gradually laminar and turned outwards.

Island of Plata, West Columbia. *Cuming*.

57. *VENUS FASCIATA* (pl. clvii. f. 114, 115), *Donovan*, t. 170. *Chemn.* f. 277-8. *V. Brogniarti*, *Payr.* *Moll. Corse*, p. 51. pl. 1. f. 23, 24, 25. An var.? *V. decipiens*, *Hanley*, *Sp. of Shells*, *App. Wood's Suppl.* pl. 16. f. 22.

V. testâ elevatâ, subtrigonâ, crassâ, compressâ, albâ vel fulvâ, rubro vel fusco radiatim fasciatâ, concentricè costatâ; costis crassis, inæqualibus, rotundato-planulatis, prope umbones lamellatis; arcâ dorsali planulatim excavatâ, sparsâ; lunulâ paululum recedente, indistinctâ; margine interno minutissimè crenulato.

The thick, broad, and rather flattened concentric ribs of this flattish, trigonal shell, are rather more laminated at the sides and near the umboes than in the centre. In the variety named *V. decipiens* a few of the laminae are more produced at the sides.

British and Mediterranean seas.



58. VENUS VARICOSA (pl. clv. f. 67), *Sowerby, jun.*

V. testâ *V. fasciata* simili, sed magis elongatâ; costis concentricis, paucis, tumidis, ante angulum posticum terminatis.

A very awkward shell, which may either be a distinct species, or an abnormal form of *V. fasciata*, or even *V. Paphia*; like the latter, the varices are suddenly interrupted before reaching the posterior angle; like the former, they terminate without forming a laminar lobe; they are very much swelled, and the shell is more produced posteriorly than *V. fasciata*.

Gulf of Mexico. In Mr. Cuming's collection.

59. VENUS DYSERA (pl. clvii. f. 119), *Chemn. f. 291-2. Linn. p. 1130.*

V. rotundatâ, ventricosâ, solidâ, albâ, lamellis erectis æquidistantibus angustis posticè subflexuosis anticè unilobatis cinctâ; latere postico vix truncato; margine dorsali arcuato; areâ acutè excavatâ, planulatâ; latere antico brevi; lunulâ convexâ; margine interno crenulato.

White, more rounded than *V. fasciata*, with the concentric laminae distant, narrow, terminating anteriorly in a partly separated lobe, and posteriorly in a slight flexuosity. The dorsal area is deeply and sharply excavated.

Sidney. *Jukes.*

60. VENUS ROBORATA (pl. clvii. f. 116, 117, 118), *Hanley. V. placida, Philippi, Abbild. t. 2. f. 2.*

V. testâ rotundatâ, albâ, nonnunquam pallidè radiatâ, solidâ; lamellis rotundatis, elevatis, reflexis, posticè angulatis, anticè unilobatis; latere postico subtruncato; areâ dorsali planulatim excavatâ; latere antico unilobato; lunulâ laminatâ, impressâ; umbonibus flavidis.

In *V. Dysera* the interstices are equal to four ribs, while in this species the ribs are rather broader than the interstices.

Van Diemen's Land.

61. VENUS THIARA (pl. clviii. f. 125-130), *Dillwyn, p. 162. Chemn. f. 279, 280. V. foliacea, Philippi, Abbild. t. 5. f. 1.*

V. testâ obliquè subrotundatâ, rubro vel fusco radiatim pictâ; lamellis concentricis, reflexis, extantibus, latis, posticè angulatim productis et bilobatis, anticè angulatim productis, ad lunulam elevatis; areâ dorsali planatim subexcavatâ; lunulâ parvâ, laminatâ, impressâ; margine interno crenulato.



The concentric laminæ vary in number and in the degree in which the two posterior lobes are produced; at the anterior side they are slightly lobed and raised upwards, so as to be quite contiguous to the edge of the small lunule.

Philippines. *Cuming*.

62. VENUS BERRYI (pl. clx. f. 170–173), *Gray*, in W. S. t. 2. f. 2. Var. *V. gravescens*, *Menke*, Philippi, Abbild. pl. 5. f. 2.

*V. testâ* obliquè ovali, subtrigonâ, albo-grisescente nonnunquam fusco fasciatim radiatâ, intus posticè violaceâ, laminis erectiusculis posticè subquadratis anticè sublobatis versus marginem ventralem magis frequentibus concentricè cinctâ; latere postico producto, subacuminato; areâ dorsali elongatâ, arcuatâ, planulatim excavatâ; latere antico brevissimo; umbonibus depressis; lunulâ ovali, impressâ; margine intus crenulato.

More oblique than any of the preceding species of the same group. The concentric laminæ increase in number towards the ventral margin, at the same time decreasing in development; the dorsal area is large, and arched; the anterior side of the shell very short, with the umboes curved downwards. In the variety named *V. gravescens* by Philippi, the lunule is dark brown, and the laminæ in front more distinctly lobed and angular.

China.

63. VENUS ALTA (pl. clviii. f. 131, 132, 133), *Sowerby*, *jun.*

*V. testâ* obliquè subtrigonâ, altâ, albo-grisescente, nonnunquam fusco radiatâ, intus posticè violaceâ; lamellis concentricis subreflexis, acutis, posticè subangulatis et bilobatis, anticè vix elevatis, angulatim lobatis; areâ dorsali latâ, planulatim excavatâ; latere antico brevi, valde declivi, inter lunulam et laminas planâ; margine interno crenulato.

More triangular than *V. thiara*, the laminæ less reflected and less produced, not so much raised in front, and leaving a space between their terminations and the lunule. The dorsal margin is less curved and broader. This latter difference between the species is the one to be relied on; without it I should not have thought it right to separate them, seeing the changeable character of both species in other respects.

Philippines. *Cuming*.

64. VENUS CALOPHYLA (pl. clx. f. 176), *Hanley*, Recent Shells, Appendix, Suppl. pl. 16. f. 26. *V. thiara*, *Dillwyn*, Reeve, Conch. Syst.



V. testâ ovatâ, pallidissimè fulvâ, subcompressâ, laminis latis pallidè coloratis extantibus utrinque ad latera interruptis tum unilobatis cinctâ; latere postico producto, obliquè subtruncato, margine dorsali planulatim excavato; latere antico brevi; lunulâ lævigatâ, impressâ.

The broad concentric laminæ are interrupted for a space, and then terminate in a broad square lobe at each side. The form is rather flat and oval.

65. VENUS CUMINGII (pl. clvii. f. 122), *Sowerby, jun.*

V. testâ rotundatâ, ventricosâ, albâ, laminis latis crenulatis pallidè rufo-strigatis tenuibus utrinque ad latera interruptis tum unilobatis cinctâ; latere postico subtruncato; margine dorsali planulatim excavato, breviusculo; latere antico brevi; lunulâ lævigatâ, impressâ; margine intus minutè crenulato.

Rounder and shorter than *V. calophyla*, with the laminæ interrupted and lobed in the same manner. They are prettily wrinkled and coloured with light pink rays.

Specimen in Mr. Cuming's collection from Port Jackson. *Jukes.*

66. VENUS PLICATA (pl. clx. f. 174), *Gmelin*, 3276.

V. testâ compresso, subcordatâ, albâ, pallidè fulvâ, partim rubro tinctâ, posticè subquadratâ, anticè brevi; laminis concentricis elevatis, tenuibus, anticè inæqualiter expansis, posticè angulatim bilobatis et productis; margine dorsali arcuato, planulato; lunulâ lævi, impressâ; margine intus crenulato.

The shell is of a flattish-cordate form, rather square at the back, and the laminæ very deep, unequally expanded at the anterior side, and posteriorly produced into two rather tortuous, squarish, elevated, distant lobes.

West Africa.

67. VENUS LAMELLATA (pl. clx. f. 175), *Lamarck*, Anim. sans vert. *Venus*, no. 28.

V. testâ oblongo-subquadratâ, compressâ, pallidè fulvâ, partim rubro tinctâ; laminis elevatis, concentricis, subtus striatis, ad margines subreflexis, inæqualiter lobatis, posticè quadratis, productis, bilobatis; latere postico angulato, truncato; margine dorsali laminato, planato; lunulâ laminatâ; margine interno minutissimè crenulato.



This beautifully foliated *Venus* has the laminæ deeply striated on the under side, irregularly fringed at the edge, and coiled over; at the back they are angulated, and produced into two hollow lobes. The crenulation of the margin is almost imperceptible.

New Holland.

68. VENUS YATEI (pl. clv. f. 68), *Gray*, Yates, New Zealand.

V. testâ ovali-subcordatâ, pallidè fulvâ, posticè subquadratâ, angulatâ, anticè brevi; laminis concentricis tenuibus, angulatim laqueatis, medio et prope umbones subobsoletis; margine dorsali laminatim striato, plano; lunulâ impressâ; margine ventrali intus minutè crenulato.

Of a more oblong oval than *V. plicata*, with an obtuse angle and quadrate form at the back. The concentric laminæ are more produced at the sides, particularly at the back of the shell, and angularly fluted.

New Zealand.

69. VENUS CASINA (pl. clx. f. 177-180), *Linn.* Syst. Nat. p. 1130. Pectunculus membranaceus, *Da Costa*. Venus reflexa, *Montague*. Venus lactea, *Donovan*. Venus discina, *Lamarck*. Test. jun. Venus Rusterucci, *Payraudeau*.

V. testâ rotundatâ, solidâ, posticè subtruncatâ, pallidè fulvâ, immaculatâ vel maculis fuscis suffusis radiatim pictâ, radiatim minutissimè striatâ, concentricè rugoso-lamellatâ; laminis reflexis, crassis, inæqualibus, posticè magis extantibus; margine dorsali planulatim subexcavato, paululum arcuato; lunulâ striatâ, impressâ; margine ventrali intus crenulato.

The laminæ are very irregular, closely reflected and thickened the greater part of their length, but more open at the back of the shell, which is more distinctly truncated. The species also varies from being nearly flat, to attaining a thickness almost equal to its length.

British, Scandinavian, and Mediterranean seas. The specimens fig. 178, 180 are from Senegal.

70. VENUS ROSALINA (pl. clx. f. 181), *Rang*, Hanley, Sp. of Shells, App. Wood's Index, Suppl. pl. 15. f. 56.

V. testâ ovali-subcordatâ, solidâ, pallidè fulvâ, fusco irregulariter subradiatim maculatâ, concentricè costellatâ; costellis rotundatis, crebris, ad latera subundulatim interruptis, posticè rarè in lobum



laminatum productis; margine dorsali planulatum excavato; lunulâ fuscâ, substriatâ; margine ventrali intus crenulato.

This shell has much the general appearance of *V. cassina*, of which it may, after all, be only an abnormal form; the concentric ribs however are all closely decumbent and rounded, excepting at the sides, where they are irregularly interrupted and some of them thickened; at the back some of them are produced into thick laminated lobes.

Senegal.

71. VENUS VERRUCOSA (pl. clx. f. 182, 183), *Linnaeus*, Syst. Nat. 12th edit. p. 1130. Venus erycina, *Pennant*. Pectunculus strigosa, *Da Costa*. Test. jun. V. cancellata, *Donovan*. V. Lemanii, *Payraudeau*, Moll. Corse.

V. testâ obliquè rotundatâ, albâ vel pallidè fulvâ, fusco literatâ; laminis concentricis duplicatis, rugosis, ad latera divaricatum tuberculatis; latere postico declivi; margine dorsali excavato, valvæ sinistrae lævigato; latere antico brevi; margine ventrali elevato, intus crenulato; lunulâ striatâ, impressâ.

A series of diverging channels at the sides of the shell separate the rough duplicate concentric laminæ into wart-like tubercles, and thus distinguish the species from *V. cassina* and others of the same group.

British and Mediterranean seas, and Senegal.

72. VENUS COR (pl. clx. f. 184), *Sowerby, jun.*

V. testâ ventricosissimâ, rotundatâ, albidâ, epidermide tenui fulvâ indutâ, liris numerosis irregularibus subundulatis rotundatis cinctâ; latere postico magno; margine dorsali elevato; areâ depressâ, striatâ; latere antico parvo, brevi, angusto, prope umbones concavo; lunulâ distinctâ nullâ; margine ventrali intus lævigato.

I name this species from its remarkable resemblance to the *Isocardia* of the same name; the hinder side being very large and inflated, the front small and hollow near the umboes; the concentric riblets are numerous and small, rather irregular and undulating; dorsal margin simple, depressed; lunule not defined; inner margin smooth.

The unique specimen is Mr. Cuming's, from Kurachee, mouth of the Indus.

73. VENUS AGRESTIS (pl. clvi. f. 75, 76, copied), *Philippi*, Abbild. t. 4. f. 2.



"V. testâ cordato-orbiculari, tumidâ, solidâ, albâ, sulcis incrementi irregularibus, subscalari, radiatim striatâ; lunulâ latè cordatâ; areâ nullâ; margine crenulato."

I copy the figure and description of this singular-looking shell, which is white, very globose, rather square, radiately striated, and with the umbo leaning very much to the front.

Strait of Magellan.

74. VENUS RUGOSA (pl. clx. f. 185, 186), *Gmelin*, 3276. V. rigida, *Dillwyn*; Chemn. f. 303. Test. jun. V. cincta, *Chemn.* f. 387.

V. testâ rotundatâ, ventricosissimâ, costellis concentricis laminatis obtusis margine reflexis subtus duplicatis interstriatis cinctâ, pallidè fulvâ, rufo-maculatâ; margine dorsali arcuato, angustato, excavato, valvæ sinistræ plano, dextræ laminato; lunulâ profundâ, cordiformi; latere antico brevi, rotundato, margine elevato, intus margine ventrali crenulato.

A very ventricose shell, with the laminæ smooth and continuous; under each one there is generally a small secondary riblet, giving the appearance, in specimens where the edges have been rubbed off, of duplicate ribs. The dorsal margin presents a difference between the two valves, one being smooth, the other laminated.

West Indies.

75. VENUS CREBRISULCA (pl. clxi. f. 187, 188, 189), *Lamarck*, Anim. sans vert. *Venus*, no. 10.

V. testâ rotundatâ, ventricosissimâ, costellis concentricis interstriatis omnino (ad latera præcipuè) crenulatis cinctâ, albâ, fusco nigro et rubro radiatim variegatâ; areâ dorsali angustâ, valvæ dextræ rubro vel fulvo, valvæ sinistræ nigro maculatâ; lunulâ cordiformi, impressâ, punctis aspersâ.

This beautifully variegated shell resembles *V. rugosa* in form, but the riblets are crenulated, particularly at the sides, and perhaps never laminated. The dorsal area is narrow, presenting a difference in the two valves in colour, one having black spots, the other bright pink or brown. I must admit the uncertainty of identification in respect of this species, which is only adopted "*faute de mieux*," in order to avoid having to coin a new name.

Mr. Cuming's specimens are from the island of Luzon, Philippines.



76. VENUS LYRA (pl. clxi. f. 192), *Hanley*, Sp. of Shells, Wood's Index, Suppl. pl. 16. f. 21.

V. testâ ovali, ventricosâ, albidâ, purpureo vel fulvo nebulosim variegatâ, costellis numerosis obtusis ad latera laminatis et striis elevatis intermediis cinctâ; latere postico longiusculo, subtruncato; margine dorsali lato, excavato, valvæ sinistræ plano, dextræ laminato; lunulâ cordiformi, striatâ; margine ventrali, intus crenulato.

Rather smaller and more oval than either of the preceding, and slightly truncated at the back. The riblets are numerous, blunt-edged in the middle, sharper and laminated at the sides. In Mr. Hanley's specimen, from the Gulf of Guinea, the surface is beautifully clouded and spotted with purple. The dorsal area of the right valve is laminated. The specimen figured is Mr. Cuming's, from West Africa.

77. VENUS CRENULATA (pl. clxi. f. 190), *Chemnitz*, f. 385. *Lamarck*, Venus, no. 5. V. crenata, *Gmel.*

V. testâ cordiformi, subovali, ventricosâ, posticè acuminatâ, anticè rotundatâ, breviusculâ, albâ, fulvo nebulatâ, laminis concentricis crebris elevatis medio obtusis ad latera laminatis crenulatis fimbriatis subulatim costelliferis cinctâ; latere postico subtruncato, subangulato; margine dorsali excavato, declivi, fuscomaculato, valvæ sinistræ plano, dextræ laminato; margine interno crenulato; lunulâ oblongâ, cordiformi, fuscâ, laminatâ.

The strong rib-like crenulations visible on the underside of the concentric laminæ give the appearance of radiating riblets on the body of the shell, which is, in fact, smooth between them. The laminæ are blunt in the middle, and sharp, and fringed at the sides of the shell.

West Indies.

78. VENUS CINGULATA (pl. clxi. f. 191), *Lamarck*, Anim. sans vert. Venus, no. 17. V. pulicaria, *Broderip*, Pro. Zool. Soc. 1835, p. 44.

V. testâ cordiformi, subovali, ventricosâ, posticè et anticè subacuminatâ, pallidè fulvâ, fusco lineis angularibus pictâ, costellis concentricis medio subobsoletis ad latera laminatis subtus creniferis cinctâ; latere antico breviusculo, declivi; lunulâ fuscâ, lævigatâ, magnâ; latere postico subacuminato; margine dorsali declivi, lato, excavato, fusco conspicuè maculato; margine ventrali intus crenulato.



The concentric ribs of this species are more obtuse, less elevated, and less strongly crenulated than those of *V. crenulata*; while the general form is more elevated, the sides more sloping, and the terminations more acuminate. The lunule is smooth and large.

West Columbia. *Cuming*.

79. VENUS GALLINULA (pl. clxii. f. 225, 226), *Lamarck*, Anim. sans vert.; *Delessert*, t. 10. f. 3. *V. costulata*, Wood's Supplement, t. 2. f. 15.

*V. testâ* oblongâ, ventricosâ, posticè subangulatâ, subtruncatâ, anticè breviusculâ, quadratim subrotundatâ, albidâ, fusco angulatum lineatâ, intus violaceâ, costellis prominulis subtus crenulatis laminatis cinctâ; margine dorsali paululum declivi, subdepresso; lunulâ parvâ, striatâ, ovali; margine intus crenulato.

Although similar in the character of the ribs, this shell differs widely from *V. crenulata*, being of a more oblong, truncated form, having the dorsal area less distinct, and the lunule small.

New Holland.

80. VENUS FOVEOLATA (pl. cliv. f. 46), *Sowerby, jun.*

*V. testâ* lenticulari, compressiusculâ, albâ, posticè fulvo pallidè tinctâ, laminis concentricis numerosis acutis cinctâ; margine dorsali profundè excavato, subplanulato; lunulâ magnâ, cordiformi, impressâ, substriatâ; margine interno crenulato.

Of a lenticular form, white, with a shade of pinkish-brown at the back; the laminæ are very numerous and sharp-edged; the dorsal area forms a deep, elongated, smooth-sided pit, from which I name the species; the lunule is large; inner margin crenulated.

Martinique.

81. VENUS DECLIVIS (pl. clvii. f. 123, 124), *Sowerby, jun.*

*V. testâ* ovali, subcordatâ, albidâ, immaculatâ vel pallidè violaceo literatâ, intus pallidè roseâ, laminis concentricis distantibus prominulis et striis intermediis elevatis cinctâ; latere postico subacuminato, declivi; margine dorsali planulatum excavato, irregulariter et sparsim lineato; lunulâ impressâ, cordiformi; margine interno crenulato.

Rather small; tending to heart-shaped oval, girt with elevated, sharp, distant laminæ and intermediate raised striæ; dorsal edge sloping, smooth, deeply excavated, and sparingly lineated, even when the shell is otherwise white. The purple-marked variety slightly differs in appearance from the others in the rather less



prominence of the laminæ, but not sufficiently so to justify separation. Both the varieties figured are in Mr. Cuming's collection. Mr. Adams's *V. elegans* is more elongated.

Eastern Seas.

82. *VENUS ELEGANS* (pl. clviii. f. 138), *Adams*, Moll. Samarang, p. 79. pl. 24. f. 13.

*V. testâ V. declivi* simili, sed magis quadratâ; laminis concentricis alternatim elevatis.

Of a more quadrate and elongated form than *V. declivis*, with the ribs alternately more produced, the end slightly truncated. We copy the figure. The shell is from some of the East Indian Islands.

83. *VENUS EXALBIDA* (pl. clxi. f. 193), *Chemnitz*, Conch. f. 1974; *Lamarck*, *Venus*, no. 29.

*V. testâ sordidè albâ*, ovali-subquadratâ, magnâ, striis elevatis inæqualibus numerosis ad latera sublaminatis cinctâ; latere postico oblongo, subangulato, subtruncato; margine dorsali subarcuato, laminato, planulatim depresso; latere antico subrotundato, brevi, supernè declivi; lunulâ elongatâ, striatâ; margine interno lævi.

A large, rather flat, oblong shell, with raised concentric striæ, of very unequal growth and development.

Strait of Magellan.

84. *VENUS LENTICULARIS* (pl. clxi. f. 194), *Sowerby*, Pro. Zool. Soc. 1835, p. 42.

"*V. testâ lenticulari-subtrapeziformi*, crassâ, opacâ, pallidâ, lævi, lineis concentricis anticè posticèque distinctis, medio obsoletis, prope umbonem elevatiusculis; margine dorsali subrotundato, posticè subangulato; impressione cordiformi elongatâ, parvâ, impressâ, intus albidâ; margine ventrali lævi."

Shaped like an *Artemis*, and nearly smooth, but with the teeth and muscular impressions more like the generality of species of *Venus*; dorsal margin depressed; lunule long, rather hollow; ventral margin smooth within.

Valparaiso Bay; in coarse sand at low water. *Cuming*.

85. *VENUS QUADRANGULARIS* (pl. clxi. f. 196), *Adams*, Voy. Samarang, Moll. p. 79. pl. 24. f. 7.

"*V. testâ quadrato-ovatâ*, subcompressâ, crassiusculâ, concentricè tenuiter et irregulariter striatâ, pallidè stramineâ, nitidâ;



umbonibus roseis; latere antico brevi, postico multo longiore; lunulâ parum distinctâ.”

A companion to *V. lenticularis*, but much thicker and more square. Of a light shining straw-colour.

Corean Archipelago.

86. *VENUS OBLONGA* (pl. clxi. f. 197, 198), *Gray*, *Yates's New Zealand*.

*V. testâ ovali, ventricosâ, ferrugineâ vel albâ, intus albâ, costellis concentricis numerosis obtusè et interruptim lamellosis nonnullis subundulatis divaricatis cinctâ; latere postico elongato, rotundato; margine dorsali paululum declivi, simplici; latere antico brevi; lunulâ plenâ, striatâ; margine ventrali intus crenulato.*

Of an oblong-oval, full form; the concentric ridges are thick, square, rather undulated, some of them interrupted and diverging near the sides, with interstices two or three times their breadth; dorsal margin rounded, simple. The anterior side is short, with laminated lunule; inner margin crenulated.

New Zealand.

87. *VENUS ALBO-RADIATA* (pl. clxi. f. 199), *Sowerby, jun.*

*V. testâ ovatâ, ventricosâ, fulvâ griscescente albo biradiatâ, costellis concentricis numerosis lævibus integris ad latera et prope marginem erecto-laminatis prope marginem ventralem crebriusculis depressis obtusis cinctâ; latere postico elongato, ad terminum obtusè triangulato; margine dorsali striato, subangulatis depresso, subarcuato; latere antico brevi, rotundatim elevato; lunulâ fuscâ, striatâ; margine ventrali intus crenulato.*

In shape and sculpture resembling *V. oblonga*, but the concentric laminæ smoother, and becoming more close and rounded near the ventral margin; the hinder side has three obscure angles at the extremity, and the dorsal margin is angularly depressed. The lunule is dark brown.

Gulf of Mexico. In Mr. Cuming's collection.

88. *VENUS ALBINA* (pl. clxi. f. 201), *Sowerby, jun.*

*V. testâ albâ, V. albo-radiatæ simili, sed anticè longiusculâ, margine magis excavatâ; lunulâ fuscâ, subexcavatâ; laminis concentricis prope marginem ventralem numerosissimis.*

In *V. albo-radiata* the concentric ribs become closer, broader,



and more flattened towards the ventral margin; in this species they become more numerous and close, but lose none of their sharpness; the outline of the anterior side in this species is more hollowed out at the lunule, which is rather excavated and dark brown.

China. In Mr. Cuming's collection.

89. VENUS PRÆPAREA (pl. clxi. f. 200), *Say*, An. Sc. Nat. vol. ii. p. 271. *V. calcarea*, *Philippi*, Abbild. *Venus*, t. 3. f. 1. *V. Mortoni*, *Conrad*?

"*V. testâ ovato-orbiculari, albâ, opacâ, veluti calcareâ, cingulis transversis lamellosis parum elevatis distantibus demum evanescentibus sculptâ; areâ lanceolatâ, planatâ, lævi; lunulâ cordatâ, lineâ profundâ cinctâ, compressâ, striatâ; margine subintegerrimo.*"

Of an ovate, rather compressed form, of a greyish or chalky whiteness, the back rather truncated; in the upper half of the shell the concentric laminæ are distant, entire, and sharply laminated, but near the margin, in the centre, are pressed down and broad.

North America.

90. VENUS TENUILAMELLATA (pl. clxi. f. 195), *Sowerby, jun.*

*V. testâ albâ, ovali, subventricosâ, lamellis tenuibus erectis distantibus æqualibus cinctâ; latere antico brevi, margine superiore et lunulâ excavatis; umbonibus prominulis; latere postico oblongo, subtruncato; margine dorsali simplici, depresso; margine ventrali intus lævigato.*

This shell is quite distinct from *V. Mortoni*, which it resembles in general appearance; it has the concentric laminæ equal and equidistant throughout, and the inner margin smooth. Only one specimen has been found.

Valparaiso; dredged by Mr. Cuming in sandy mud at twenty fathoms.

91. VENUS MERCENARIA (pl. clxii. f. 204, 205, 206), *Linnaeus*, Syst. Nat. 12th edit. p. 1131. Test. jun. *V. notata*, *Say*, Journ. An. Nat. Sc. Phil. vol. vi. p. 271. *V. obliqua* et *V. cyprinoides*, *Anton*.

*V. testâ cordatâ, ovatâ, crassâ, obliquâ, prope umbones et ad latera striis elevatis concentricis subæqualibus distantibus cinctâ, in medio planâ, ætate ferrugineâ, concolore, intus posticè violaceâ; test. jun. albidâ, fusco-maculatâ, posticè fuscâ, intus albâ, latere*



antico brevi; lunulâ cordatâ, striatâ, impressâ; latere postico obliquè declivi, subangulato; margine dorsali maculato, angulatim depresso.

From a great number of specimens in various stages I am led, notwithstanding the absence of interior purple, the less obliquity, and the variegated markings of *V. notata* of American authors, to consider it as merely the young state, or, at most, a local variety of *V. mercenaria*.

North America.

92. *VENUS STRIATULA* (pl. clviii. f. 134, 135, 136), *Da Costa* (*Pectunculus*), *Brit. Conch.* p. 191. pl. 12. f. 2; *Donovan* (*Venus*). *Venus gallina*, *Auct. Brit., non Linn.* *V. Pennantii*, *Forbes*. *V. laminosa*, *Turt.* *V. rugosa*, *Pennant*. *V. Prideauxiana*, *Couch*. *V. sulcata*, *V. costata*, *Brown*.

*V. testâ* ovali-subcordatâ, subcompressâ, pallidè fulvâ, rufo vel fusco-radiatim fasciatâ et minutè maculatâ, costellis numerosis medio rotundatis ad latera laminatis cinctâ; latere antico breviusculo, subacuminato, supernè declivi; lunulâ substriatâ, planulatim depressâ; latere postico producto, subacuminato; margine dorsali striato, rufo minutè maculato, declivi, planulatim depresso; margine ventrali subrotundato, intus crenulato.

A rather small, oval shell, rather acuminate at each end, and shorter in front than behind; the riblets are small and numerous, rounded in the middle, and laminated at the sides; it is generally of a light brown or whitish colour, rayed and sprinkled with small reddish spots, particularly on the dorsal area, which is sloping and flattened.

British Seas.

93. *VENUS GALLINA* (pl. clxi. f. 202, 203), *Linnaeus*, *Syst. Nat.* 12th edit. p. 1131.

*V. testâ* cordatâ, obliquè subtrigonâ, albâ vel fulvâ, punctis fuscis aspersâ et plerumque fasciatâ, intus posticè violaceâ, costellis lævibus subplanulatis irregulariter undulatis et interruptis posticè tenuioribus cinctâ; latere antico breviusculo, subacuminato, supernè declivi; umbonibus elevatis; latere postico subrotundato; margine dorsali striato, depresso, asperso; margine ventrali rotundato, intus crenulato.

A broader and more elevated shell than *V. striatula*, more rounded at the sides and ventral margin; the ribs broader and more flattened in the centre, and irregularly interrupted and un-



dulated near the sides, becoming very fine and narrow near the posterior margin.

Mediterranean.

94. VENUS STRIATA (pl. clxii. f. 207-213), *Chemn.*, Conch. f. 364, 365, 366. *V. tristis*, *Lamarek*, Anim. sans vert. *Venus*, no. 73. *V. aurisiaca*, Wood's Suppl. pl. 2. f. 12. Var. (f. 208), *V. Japonica*, *Gmel.*, p. 3270. *V. elegantina*, *Lamarek*, no. 83.

*V. testâ ovali-subcordatâ, aurantiâ, griseâ vel albâ, immaculatâ vel maculis griseis angulatim et radiatim pictâ, intus nonnuncquam aurantiâ; costellis lævigatis, numerosis, rotundatis, prope latera subundatis cinctâ; latere postico subelongato, subangulato, vix truncato, acuminato; margine dorsali lævigato, plerumque livido, literato; latere antico breviusculo, subrotundato; lunulâ oblongâ, politâ, lividâ; margine ventrali prope medium inflato, intus lævigato.*

At first sight it would appear an easy matter to separate two shells so seemingly distinct as the extreme varieties represented by f. 207 (*V. tristis* and *V. striata*), and f. 208 (*V. Japonica* and *V. elegantina*); but it happens very perplexingly, that we have specimens partaking the characters of both in every point of difference. Although the varieties differ in height, in fulness, in the degree of posterior angularity, and in colour, they agree in having numerous, slightly irregular, not perfectly concentric ribs, the ventral margin swelled and smooth within, and the dorsal area and lunule oblong and shining. The var. named *tristis* has an orange tint within. The pretty little variety *V. aurisiaca* is from Mr. Hanley's collection.

The species ranges from Japan to the Philippines and New Holland.

95. VENUS LABUANA (pl. clxii. f. 214), *Adams*, Moll. Samarang, p. 79. pl. xxi. f. 16.

"*V. testâ subtriangulari, gibbosâ, anticè truncatâ, posticè flexuosâ, acuminato-rostratâ, albidâ, lineis nigricantibus acutè angulatis ornatâ, concentricè valde sulcatâ; sulcis irregularibus; margine ventrali posticè sinuato.*"

Not very widely different from the more acuminate varieties of *V. striata*, but much more produced and decidedly beaked, more concentrically and regularly sulcated, more full and rounded in front. It is elegantly marked with fluctuating grey lines.

Labuan. *Adams*.



96. VENUS SCALARINA (pl. clxii. f. 215-220), *Lamarck*, Anim. sans vert., *Venus*, no. 54. Var. V. conularis, *Lamarck*, no. 78?

V. testâ obliquè ovali, compressâ, costis elevatis numerosis ad latera paucis lamelliformibus cinctâ, albidâ, griseo punctatim literatâ, vel rufâ fusco lineatâ, vel albâ; intus frequenter posticè purpureo pictâ; latere postico obliquè producto, subacuminato; latere antico brevi; lunulâ et areâ dorsali elongatis, planulatim depressis; margine ventrali lævigato.

Obliquely oval, rather flat, with elevated, Scalariform ribs, which are fewer in number, and more laminar and produced at the sides; lunule and dorsal area both long and smooth, inner margin smooth. The typical colouring is by dull greyish spots in zigzag rows. In some varieties the ribs are nearly obsolete in the middle of the shell. The three following species are nearly connected with this, and, it is just possible, may be only local or accidental variations.

Australia.

97. VENUS PERONII (pl. clxii. f. 224), *Lamarck*, Anim. sans vert. *V.* no. 81.

V. testâ *V. scalarinæ* simili, sed magis ventricosâ et ovali; costellis planulatis, ad latera subobsoletis.

More full and oval than *V. scalarina*, with the ribs flat in the middle, and nearly obsolete at the sides.

Australia.

98. VENUS APHRODINA (pl. clxii. f. 221), *Lamarck*, Anim. sans vert. *V.* no. 80. Var. V. aphrodinoides, *Lamarck*, *V.* no. 84.

V. testâ *V. scalarinæ* simili, sed haud tantum obliquâ, semper concolori? costellis magis numerosis, medio depressiusculis, posticè subobsoletis.

The tendency of this species (if distinct) is to be less oblique than *V. scalarina*, with the ribs smaller and more numerous, much depressed in the centre, and nearly obsolete at the hinder part. It is not so plump and rounded as *V. Peronii*.

Australia.

99. VENUS STRIGOSA (pl. clxii. f. 222, 223), *Lamarck*, Anim. sans vert. *V.* no. 79.

V. testâ *V. aphrodinæ* simili, sed costellis crenulatis.



In form more like *V. aphrodina* than *V. scalarina*, but having the ribs crenulated by fine radiating striæ. Lamarek has not mentioned the latter character, and perhaps did not observe it, but the fact of *V. aphrodina* not being marked with the angular grey lines which characterize some specimens of our species, points to the probability of our identification being correct.

Australia.

100. VENUS ASTARTOIDES (pl. clviii. f. 137), *Philippi*, — ?

V. testâ ovali-subtrigonâ, lævi, albâ, epidermide pallidè subviridi indutâ, concentricè leviter costellatâ; umbonibus corrosis; margine dorsali et lunulâ declivibus, lævibus; latere postico subelongato, vix truncato.

Rather trigonal, very smooth, colourless, and covered by a thin pale epidermis; the concentric ridges are very slightly raised. This shell has very much the appearance of an *Astarte*, but is thin, and has a slight bend in the pallial impression.

Greenland.

101. VENUS GEMMA (pl. clviii. f. 141), *Totten*, Silliman's Journal, vol. 26. p. 367.

V. testâ minutâ, tenui, rotundato-subtrigonâ, subæquilaterâ, lævi, posticè violaceâ; lunulâ et areâ dorsali distinctis nullis; pallii impressiones sinu elongato, erecto, trigono.

A minute, partly rounded, partly trigonal, nearly equilateral, smooth, purple-tinged, thin shell, with a remarkably erect, pointed sinus in the pallial impression.

New York.

102. VENUS FUMIGATA (pl. clix. f. 152-155), *Sowerby, jun.*

V. testâ lævi, crassâ, obliquè subovali, anticè rotundatâ, planâ, posticè subangulatim productâ, subsulcatâ, colore fumoso, prope umbones maculatim radiatâ; areâ dorsali et lunulâ lividis, depressis, lævibus; margine ventrali arcuato.

Much shorter, more full than *V. Kochii*, and not contracted or beaked behind; there are a few slight grooves on the posterior angle. The colour is dull smoky, with spotted rays near the umbones. The fine specimen figured, half the natural size, is from the collection of Mr. Gaskoin. I regret being unable to find room in the plates to figure a *very* smoky variety of this, lately added to Mr. Cumming's collection.

Australia. *Strange*.



103. VENUS LÆVIGATA (pl. cliv. f. 156, 157, 158), *Sowerby, jun.*

V. testâ *V. fumigatæ* simili, sed magis oblongâ, haud posticè sulcatâ.

Very different in general form from *V. fumigata*, being of a much more oblong oval, and also in not having the grooves on the posterior angle. In many respects however it closely resembles that species.

Australia. *Strange.*

104. VENUS POLITA (pl. clviii. f. 139, 140), *Quoy, Voyage of Astrolabe, Moll. pl. 84. f. 13, 14.*

V. testâ ovali, lævigatâ, concentricè leviter costellatâ, pallidè viridescente, prope marginem griseo-radiatâ, intus flavidâ, ad marginem albâ, cardine utrinque purpureo-immaculato.

This species, the figure of which we copy, resembles *V. fumigata*, but differs in having slightly-raised concentric ridges.

Locality — ?

105. VENUS KOCHII (pl. clviii. f. 147–151), *Philippi, t. 1. f. 5. V. paupercula, Chemn., f. 1977?*

V. testâ lævi, crassâ, variegatâ, subovali, anticè rotundatâ, plenâ, posticè subangulatâ, productâ, rostratâ; areâ dorsali et lunulâ declivibus, lividis, lævigatis, oblongis; margine ventrali posticè contracto.

A smooth, thick, oval, variegated shell, rather rounded, and full in front, and produced behind into an angular beak, the ventral margin being slightly contracted near the angle.

Mozambique. Zanzibar.

106. VENUS AFRICANA (pl. cliv. f. 159–164), *Mühlfeldt, Philippi, Abbild. t. 1. f. 6.*

V. “testâ compressâ, ovato-oblongâ, inæquilatâ, posticè subrostratâ, lævissimâ, albâ, radiis latis lineisque fuscis pictâ; lunulâ parvâ, lanceolatâ, areâ exquisitè sulcatâ.”

Very smooth, flat, elongated oval, the hinder side much the longer, with short sulci on a slight angle. The colouring of the species is beautifully varied.

Cape of Good Hope.

107. VENUS UNDULOSA (pl. clviii. f. 142–146), *Lamarck, Anim. sans vert. no. 85. Venus variabilis, Sowerby, Pro. Zool.*



Soc. 1835, p. 42. Hanley, Sp. of Shells, Wood's Suppl. pl. 15. f. 49.

V. testâ oblongo-subtrigonâ, tenuisulcâ, lævi, politâ, albâ, strigilis lineisve angularibus fuscis variè pictâ, intus albâ; margine integerrimo.

Smooth, nearly trigonal, flat; the lunule long, not very distinctly marked. Shell sometimes white, but generally marked with undulating and angular lines. The specimen with a few pink lines is Mr. Hanley's, the others are Mr. Cuming's.

Australia.

108. VENUS DONACINA (pl. clix. f. 165, 166, 167), *Chemn.*, Conch. f. 1983, 1984. Donax veneriformis, *Lamarck*, no. 10. Tank. Cat. V. semicancellata, *Koch*, Philippi, Abbild. t. 1. f. 2, 3.

V. testâ crassâ, compressâ, trigonâ, fumoso-fulvâ, lævigatâ, obscure radiatâ et punctatâ, subæquilatâ; latere postico angulato, radiatim striato, ad angulum subcancellato; latere antico subtrigono; lunulâ et areâ dorsali impressis, indistinctis.

Very thick, smooth, triangular, flattish, of a smoky-brown colour, and nearly equilateral; the hinder side is angulated and radiately grooved, and at the angle, particularly when young, has a few cross grooves. The variety is an abnormal form, and slightly resembles the one figured as *V. semicancellata* by Philippi.

Japan. *Dr. Sibbald*.

109. VENUS ÆQUILATERA (pl. clix. f. 168, 169), *Sowerby* (Donax), Tank. Cat.

V. testâ *V. donacinæ* simili, sed margine ventrali magis arcuato; latere postico vix angulato; striis radiantibus nullis.

More arched in the ventral outline, in the hinder slope, and altogether less angular, than *V. donacina*; striated concentrically, but not cancellated at the hinder angle.

Japan. *Dr. Sibbald*.



LIST OF FIGURES IN PLATES CLII. TO CLXII., AND THE  
SUPPLEMENTARY PLATE, CLXIII.

(The Figure after each name is the number of the Species.)

PLATE CLII.

Fig.

- 1, 2. *V. puerpera*, 1, *Linn.*  
3, 4. — *lacerata*, 3, *Haut.*  
5. — *magnifica*, 2, *Sowb., jun.*  
6. — *Chemnitzii*, 6, *Haut.*  
7, 8. — *Listeri*, 5, *Gray.*  
9, 10. — *multicostata*, 7, *Sowb.*

PLATE CLIII.

- 11–13. *V. reticulata*, 10, *Linn.*  
14. — *costellata*, 4, *Sowb.*  
15. — *laqueata*, 9, *Sowb., jun.*  
16. — *nodulosa*, 15, *Sb., jun.*  
17, 18. — *simillima*, 16, *Sb., jun.*  
19. — *monilifera*, 11, *Sb., jun.*  
20, 21. — *Lamarekii*, 13, *Gray.*  
22. — *undatella*, 22, *Sowb.*  
23. — *resticulata*, 8, *Sb., jun.*  
24. — *ornatissima*, 15, *Brod.*

PLATE CLIV.

25. *V. Gnidia*, 17, *Brod.*  
26, 27. — *Amathusia*, 18, *Phil.*  
28–31. — *cancellata*, 19, *Linn.*  
32–34. — *compta*, 20, *Brod.*  
35–38. — *subimbricata*, 23, *Sowb.*  
39. — *subrostrata*, 21, *Lamk.*  
40, 41. — *Californiensis*, 24, *Brod.*  
42–43. — *fluctifraga*, 26, *Sowb.*  
44, 45. — *callosa*, 25, *Conrad.*  
46. — *foveolata*, 80, *Sb., jun.*

PLATE CLV.

Fig.

- 47–49. *V. granulata*, 27, *Gmel.*  
50, 51. — *Stutchburii*, 28, *Gray.*  
52. — *histrionica*, 32, *Sowb.*  
53, 54. — *Columbiensis*, 29, *Sowb.*  
55, 56. — *pectorina*, 30, *Lamk.*  
57, 58. — *asperrima*, 31, *Sowb.*  
59, 60. — *intersecta*, 33, *Sowb., jun.*  
61. — *Paphia*, 50, *Linn.*  
62. — *affinis*, 51, — ?  
63. — *subrugosa*, 52, *Sowb.*  
64. — *Kellettii*, 53, *Hinds.*  
65. — *discrepans*, 55, *Sowb.*  
66. — *Peruviana*, 64, *Sowb.*  
67. — *varicosa*, 58, *Sowb., jun.*  
68. — *Yatei*, 68, *Gray.*

PLATE CLVI.

- 69–72. *V. pygmæa*, 12, *Lamk.*  
73, 74. — *crenifera*, 34, *Sowb.*  
75, 76. — *agrestis*, 73, *Phil.*  
77, 78. — *decorata*, 35, *Brod.*  
79, 80. — *Cochinensis*, 27, *Thorpe.*  
81, 82. — *imbricata*, 36, *Sowb., jun.*  
83, 84. — *squamosa*, 38, *Linn.*  
85, 86. — *flexuosa*, 39, *Linn.*  
87. — *punctifera*, 40, *Gray.*  
88–90. — *macrodon*, 41, *Lamk.*  
91. — *rostrata*, 42, *Sowb., jun.*  
92–98. — *spurca*, 49, *Sowb.*



## PLATE CLVII.

- Fig.  
 99, 100. *V. ovata*, 43, *Penn.*  
 101, 102. — *scabra*, 45, *Hanl.*  
 103–105. — *striatissima*, 44, *Sb. jn.*  
 106. — *costellifera*, 46, *Adams.*  
 107–110. — *marica*, 47, *Linn.*  
 111, 112. — *australis*, 48, *Sb., jun.*  
 113. — *Cypria*, 56, *Sowb.*  
 114, 115. — *fasciata*, 57, *Donov.*  
 116–118. — *roborata*, 60, *Hanl.*  
 119. — *Dysera*, 59, *Chemn.*  
 122. — *Cumingii*, 65, *Sb., jn.*  
 123, 124. — *declivis*, 81, *Sb., jun.*

## PLATE CLVIII.

- 125–130. *V. thiara*, 61, *Dillw.*  
 131–133. — *alta*, 63, *Sowb., jun.*  
 134–136. — *striatula*, 92, *Costa.*  
 137. — *astartoides*, 100, *Phil.*  
 138. — *elegans*, 82, *Adams.*  
 139, 140. — *polita*, 104, *Quoy.*  
 141. — *gemma*, 101, *Totten.*  
 142–146. — *undulosa*, 107, *Lamk.*  
 147–151. — *Kochii*, 105, *Phil.*

## PLATE CLIX.

- 152–155. *V. fumigata*, 102, *Sb., jn.*  
 156–158. — *lævigata*, 103, *Sb., jn.*  
 159–164. — *Africana*, 106, *Mühlf.*  
 165–167. — *donacina*, 108, *Chem.*  
 168, 169. — *æquilatera*, 109, *Sowb.*

## PLATE CLX.

- 170–173. *V. Berryi*, 62, *Gray.*  
 174. — *plicata*, 66, *Gmel.*  
 175. — *lamellata*, 67, *Lamk.*  
 176. — *calophyla*, 64, *Hanl.*  
 177–180. — *casina*, 69, *Linn.*

## Fig.

181. *V. rosalina*, 70, *Rang.*  
 182, 183. — *verrucosa*, 71, *Linn.*  
 184. — *cor*, 72, *Sowb., jun.*  
 185, 186. — *rugosa*, 74, *Gmel.*

## PLATE CLXI.

- 187–189. *V. crebrisulca*, 75, *Lamk.*  
 190. — *crenulata*, 77, *Chemn.*  
 191. — *cingulata*, 78, *Lamk.*  
 192. — *lyra*, 76, *Hanl.*  
 193. — *exalbida*, 83, *Chemn.*  
 194. — *lenticularis*, 84, *Sowb.*  
 195. — *tenuilamellata*, 90, *Sj.*  
 196. — *quadrangulus*, 85, *Ad.*  
 197, 198. — *oblonga*, 86, *Gray.*  
 199. — *albo-radiata*, *Sb., jun.*  
 200. — *præparea*, 89, *Say.*  
 201. — *albina*, 81, *Sb., jun.*  
 202, 203. — *gallina*, 93, *Linn.*

## PLATE CLXII.

- 204–206. *V. mercenaria*, 91, *Linn.*  
 207–213. — *striata*, 94, *Chemn.*  
 214. — *Labuana*, 95, *Adams.*  
 215–220. — *Scalarina*, 96, *Lamk.*  
 221. — *aphrodina*, 98, *Lamk.*  
 222, 223. — *strigosa*, 99, *Lamk.*  
 224. — *Peronii*, 97, *Lamk.*  
 225, 226. — *gallinula*, 79, *Lamk.*

## PLATE CLXIII.

(Supplementary descriptions following.)

## MEROE.

16. *M. excavata*, 5, *Hanl.*  
 17. — *menstrualis*, 8, *Menke.*  
 18, 19. — *Solandri*, 7, *Gray.*

## CYTHERÆA.

202. *C. pannosa*, 82, *Sowb.*



Fig.		Fig.	
204.	<i>C. consanguinea</i> , 119, <i>C. B. Adams.</i>		CIRCE.
204.	— <i>umbonella</i> , 37, <i>Lamk.</i>	53, 54.	<i>C. dispar</i> , 5, <i>Chemn.</i>
205.	— <i>rutila</i> , 116, <i>Steb. jun.</i>	55-58.	— <i>minima</i> , 16, <i>Mont.</i>
206, 207.	— <i>Philippinarum</i> , 52, <i>Hanley.</i>		TAPES.
208, 209.	— <i>disrupta</i> , 117, <i>Sb. jun.</i>	158.	<i>T. sulcosa</i> , 1, <i>Phil.</i>
210.	— <i>innocens</i> , 118, <i>Sb. jun.</i>	159.	— <i>Dombeyi</i> , 62, <i>Lamk.</i>
211.	— <i>iridescens</i> , 120, <i>Sb. jun.</i>	160.	— <i>Meroæformis</i> , 75, <i>S. j.</i>
		161, 162.	— <i>expallescens</i> , 73, <i>Phil.</i>
		163.	— <i>fluctuosa</i> , 74, <i>Gould.</i>

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## SUPPLEMENTARY DESCRIPTIONS OF SPECIES AND VARIETIES OF *VENERIDÆ*.

GENUS MEROE, from page 611, pl. cxxvi.

Sp. 5. *M. EXCAVATA* (f. 13, 14; var. pl. clxiii. f. 16). Variety and synonym omitted.—*Cytheræa vaginalis*, Menke, Phil. Abbild. t. 3. f. 2.

Sp. 7. *M. SOLANDRI* (f. 10; var. pl. clxiii. f. 18, 19). Varieties and synonyms omitted.—*Cytheræa hians*, Wood's Supplement, pl. 2. f. 11.

Sp. 8. *M. MENSTRUALIS* (pl. clxiii. f. 17), *Menke*, Phil. Abbild. *Cyth.* t. 3. f. 3.

“*M. testâ suborbiculatâ, convexiusculâ, antèrius compressâ, longitudinaliter leviter striatâ, obsoletè decussatâ, livido-fuscâ, lineis angularibus cruentis lividis transversim seriatis pictâ; margine intus crenato; ano lineari, subulato; valvâ profundè impressâ, patente.*”

Large, flat, orbicular, slightly striated, and altogether very different from any other species.

GENUS CYTHERÆA, from page 646, pl. cxxxvi.

Sp. 37. *C. UMBONELLA* (pl. cxxx. f. 63-66; var. pl. clxiii. f. 204). A pretty variety from Mr. Campbell's collection.



Sp. 52. *C. PHILIPPINARUM* (pl. cxxxvi. f. 176; var. pl. clxiii. f. 206, 207). A beautiful undulated variety, and another.

Sp. 82. *C. PANNOSA* (pl. cxxxiii. f. 140-142; var. pl. clxiii. f. 202). A variety necessary to elucidate the species.

Sp. 116. *C. RUTILA* (pl. clxiii. f. 205), *Sowerby, jun.*

Cyth. testâ lævigatâ, subcompressâ, latâ et altâ, subovali, subroseâ, fasciis radiatis inæqualibus interruptis latis pictâ; margine dorsali castaneo-maculato; lunulâ elongatâ, distinctâ, lævi, planulatâ.

A magnificent shell in Mr. Cuming's collection, smooth, with broad rays of chestnut-colour on a pinkish ground; the dorsal margin is smooth, with large angular spots; the lunule is smooth and long.

Sp. 117. *C. DISRUPTA* (pl. clxiii. f. 208, 209), *Sowerby, jun.*

Cyth. testâ ovali, lævigatâ, subcompressâ, concentricè tenuiter striatâ, albidâ, fulvo disruptim radiatâ et maculatâ; margine dorsali declivi, polito, maculis magnis castaneis variegato; lunulâ excavatâ; latere antico breviusculo, postico subacuminato.

This may possibly be only a smoother variety of *C. multistriata*, sp. 56, f. 117; the broken-up spots and bands and the broad patches on the dorsal margin are remarkable, and the excavated lunule more so; the shell is broader and less pointed than *C. multistriata*.

New Zealand. *Strange.*

Sp. 118. *C. INNOCENS* (pl. clxiii. f. 210), *Sowerby, jun.*

Cyth. testâ ovali, lævigatâ, compressâ, concentricè tenuiter striatâ, pallidâ, versus marginem fulvâ, interruptim radiatâ; margine dorsali lævi, submaculato; lunulâ parvâ, distinctâ, planulatâ; latere postico obtusè rotundatim angulato, subtruncato.

Closely resembling the preceding, but much more simple and unobtrusive in its colouring, and having the lunule small and not at all excavated.

Sp. 119. *C. CONSANGUINEA* (pl. clxiii. f. 203), *C. B. Adams.*

Cyth. testâ tenui, inflatâ, lævigatâ, pallidâ, prope umbones radiatâ, margine ventrali rotundatâ, anticè elevatâ; margine dorsali



declivi, anticè subacuminato; lunulâ latâ, circumscriptâ; umbo-nibus inflatis, roseis.

Distinguishable from *C. inflata* (nobis) only in having an impressed line circumscribing the lunule, and being a little more pointed anteriorly.

Panama. *C. B. Adams*.

Sp. 120. *C. IRIDESCENS* (pl. clxiii. f. 211), *Sowerby, jun.*

Cyth. testâ parvâ, rotundatâ, iridescente-albâ, concentricè versus marginem ventralem minutè elevatim striata; margine dorsali declivi; lunulâ magnâ, circumscriptâ, cardine dente antico magno.

A small, white, rounded shell, with an iridescent white surface, striated concentrically near the ventral margin.

GENUS CIRCE, from page 650, pl. cxxxix.

Sp. 5. *C. DISPAR* (pl. cxxxvii. f. 10, 11; var. pl. clxiii. f. 53, 54). Two beautiful varieties recently received by Mr. Cuming.

Sp. 15. *C. MINIMA* (pl. cxxviii. f. 18-21; var. pl. clxiii. f. 55, 56, 57, 58). Varieties from Puerto Santo. *M. Andrew*.

GENUS TAPES, from page 699, pl. cli.

Sp. 8. *T. SULCOSA* (pl. cxlv. f. 14; var. pl. clxiii. f. 158). A variety in Mr. Gaskoin's collection, more ventricose in the centre, and more smooth near the umboes.

Sp. 10. *T. TEXTILE* (pl. cxlvi. f. 26-28). One or two specimens exist in Mr. Gaskoin's collection, resembling the variety f. 28, but having a few sulci similar to those in *T. rimosa*. Is this a new species?

Sp. 62. *T. DOMBEYI* (pl. cl. f. 118; var. pl. clxiii. f. ). If a variety, a very remarkable one, still not sufficiently defined in character to describe as a species.

Sp. 73. *T. EXPALlescens* (pl. clxiii. f. 161, 162), *Philippi*, Abbild. t. 3. f. 5.

Tap. "testâ ovato-oblongâ, subellipticâ, compressâ, albidâ, ad apicem violascente, opacâ, transversim irregulariter striatâ; areâ omnino nullâ; lunulâ cordatâ, lineâ impressâ cinetâ, parum distinctâ; margine integerrimo."

A small, white, compressed, smooth shell, from Chili.



Sp. 74. *T. FLUCTUOSA* (pl. clxiii. f. 163), *Gould*, *Invert. Mass.* p. 89. f. 50.

Tap. testâ parvâ, tenui, compressâ, ovali, pallidè fulvâ, minutè radiatim striatâ, posticè lævigatâ, margine dorsali depresso, rectiusculo; latere postico oblongo, subtruncato, margine interno crenulato.

A small, thin, flattish-oblong shell, of a pale colour, minutely striated in both directions, but most conspicuously radiating from the umboes.

Sp. 75. *T. MEROÆFORMIS* (pl. clxiii. f. 160), *Sowerby, jun.*

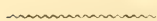
Tap. testâ solidâ, subcompressâ, inæqualiter subtrigonâ, leviter rotundatim sulcatâ, ad umbones lævigatâ, omnino pallidè fulvâ, medio et prope umbones castaneo marmoratâ; latere antico brevi; lunulâ depressâ, lanceolatâ, politâ, declivi; latere postico subelongato, subtruncato; margine dorsali declivi, latè depresso, nitente.

A fine species recently received by Mr. Cuming, at first sight very nearly resembling a *Meroe*, but wanting the deep incision of the dorsal margin characteristic of that genus.



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## ALPHABETICAL ARRANGEMENT OF SPECIFIC NAMES.

- abbreviata, *Lamk.*, Cyth. 110. pl. 135. f. 170, 171.  
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 acuminata, *Sowb., jun.*, Cyth. 75\*. pl. 136. f. 178.  
 acuminata, *Sowb., jun.*, Tap. 36. pl. 149. f. 105.  
 Adasoni, *Phil.*, Art. 42. pl. 142. f. 52.  
 Adenensis, *Phil.*, Tap. aurea, or vermicularis?  
 ænea, *Turt.*, Tap. aurea, sp. 38.  
 æquilatera, *Sowb.* (Donax), Ven. 109. pl. 159. f. 168, 169.  
 æquivoca, *Chemn.*, Cir. 4. pl. 137. f. 12-15.  
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 affinis, *Brod.*, Cyth. 62. pl. 132. f. 101.



- affinis*, *Gmel.*, Cyth. læta, sp. 84?  
*affinis*, *Sowb., jun.*, Ven. 51. pl. 155. f. 62.  
*agrestis*, *Phil.*, Ven. 73. pl. 156. f. 75, 76.  
*alata*, *Reeve*, Art. 63. pl. 144. f. 73.  
*albida*, *Gray*, Cyth. *Kingii*, sp. 92\*?  
*albina*, *Lamk.*, Cyth. 73. pl. 133. f. 121.  
*albina*, *Sowb., jun.*, Ven. 88. pl. 161. f. 202.  
*albo-cincta*, *Sowb., jun.*, Cyth. 83. pl. 136. f. 187.  
*albo-radiata*, *Sowb., jun.*, Ven. 87. pl. 161. f. 199.  
*alta*, *Sowb., jun.*, Ven. 63. pl. 158. f. 129-131.  
*alternata*, *Brod.*, Cyth. *circinata*, sp. 65.  
*amabilis*, *Phil.*, Tap. 6. pl. 145. f. 11.  
*Amathusia*, *Phil.*, Ven. 18. pl. 154. f. 26, 27.  
*amphidesmoides*, *Reeve*, Art. 15. pl. 141. f. 17-19.  
*angulifera*, *Sowb., jun.*, Cyth. 81. pl. 136. f. 189.  
*angulosa*, *Phil.*, Art. 27. pl. 141. f. 26.  
*anomala*, *Lamk.* (Ven. 51.), not recognized.  
*antiqua*, *Gray*, Ven. *costellata*, sp. 4.  
*anus*, *Phil.*, Art. 69. pl. 144. f. 82.  
*aper*, *Quoy*, Tap. *texturata*, sp. 39?  
*aphrodina*, *Lamk.*, Ven. 98. pl. 162. f. 221.  
*aphrodinoides*, *Lamk.*, Ven. *aphrodina*, sp. 98.  
*apicalis*, *Phil.*, Cir. *minima*, sp. 16.  
*Arabica*, *Chemn.*, Cyth. 108. pl. 135. f. 165-168.  
*arenosa*, *Phil.*, Tap. 34. pl. 146. f. 33.  
*argentina*, *Sowb.*, Cyth. 34. pl. 129. f. 62.  
*aspera*, *Reeve*, Art. 48. pl. 143. f. 56.  
*asperrima*, *Sowb.*, Ven. 31. pl. 155. f. 57, 58.  
*aspera*, *Lamk.*, Tap. 19. pl. 147. f. 52.  
*astartoides*, *Phil.*? Ven. 100. pl. 158. f. 137.  
*aurantia*, *Hanl.*, Cyth. 58. pl. 132. f. 97 *bis*.  
*aurea*, *Gmel.*, Tap. 38. pl. 149. f. 108-110.  
*aurisiaca*, *Wood*, Ven. *striata*, sp. 94.  
*australis*, *Sowb., jun.*, Cir. 6. pl. 137. f. 16, 17.  
*australis*, *Quoy*, Art. *variegata*, sp. 72.  
*australis*, *Chemn.*, Cyth. *castrensis*, sp. 103.  
*australis*, *Sowb.*, Ven. 48. pl. 157. f. 111, 112.  
*Belcheri*, *Sowb., jun.*, Tap. 20. pl. 147. f. 50, 51.



- Belcheri, *Sowb., jun.*, Cyth. 80. pl. 136. f. 188.  
 Berryi, *Gray*, Ven. 62. pl. 160. f. 170–173.  
*Bendantii*, *Payr.*, Tap. petalina, sp. 35.  
 bicolor, *Gray*, Cyth. 19. pl. 127. f. 10, 11.  
*bicolor*, *Lamk.*, Tap. floridella, sp. 33.  
 bilunata, *Gray*, Art. 56. pl. 143. f. 66.  
*bilunulata*, *Brit. Mus.*, Cyth. Kingii, sp. 92\*?  
*biradiata*, *Sowb.*, Cyth. squalida, sp. 61\*.  
 Birmanica = Meroe seminuda, sp. 3.  
 biscocta, *Reeve*, Art. 44. pl. 142. f. 50.  
 brevispinosa, *Sowb., jun.*, Cyth. 71. pl. 132. f. 109.  
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*brunnea*, *Chemn.*, Cyth. casta? sp. 31.  
 bullata, *Sowb., jun.*, Cyth. 96. pl. 136. f. 192.  
 cærulea, *Reeve*, Art. 32. pl. 142. f. 43, 44.  
*calcarea*, *Phil.*, Ven. præparea, sp. 89.  
 calculus, *Reeve*, Art. 43. pl. 142. f. 53.  
 Californiensis, *Brod.*, Ven. 24. pl. 154. f. 40, 41.  
 callosa, *Conrad*, Ven. 25. pl. 154. f. 44, 45.  
*callypiga*, *Lamk.*, Tap. flammiculata, sp. 26.  
 calophyla, *Hanl.*, Ven. 64. pl. 160. f. 176.  
 calypiga, *Born*, Cyth. 112. pl. 135. f. 164.  
 canaliculata, *Sowb., jun.*, Art. 49. pl. 143. f. 58.  
 cancellata, *Linn.*, Ven. 19. pl. 154. f. 28–31.  
 cancellata, *Chemn.*, var. Ven. Lamarckii, sp. 13.  
 cardilla, *Lamk.* (Cyth. 54), Ven. Stutchburii?  
 cardioides, *Lamk.* (Erycina), Ven. striatissima, sp. 44.  
 cardioides, *Lamk.*, Ven. pectorina, sp. 30.  
*carneola*, *Lamk.*, Tap. flammiculata, sp. 26.  
 casina, *Linn.*, Ven. 69. pl. 160. f. 177–180.  
 casta, *Gmel.*, Cyth. 31. pl. 129. f. 43–46.  
*castanea*, *Lamk.*, Cyth. impudica, sp. 30.  
 castrensis, *Linn.*, Cyth. 103. pl. 134. f. 151–154.  
 catenifera, *Lamk.*, Tap. 25. pl. 149. f. 106, 107\*.  
 Ceylonensis, *Sowb., jun.*, Tap. 16. pl. 146. f. 24, 25.  
 Chemnitzii, *Hanl.*, Ven. 5. pl. 152. f. 6.  
 Chinensis, *Chemn.*, Art. 20. pl. 141. f. 23, 24.  
 Chilensis, *Sowb.*, Tap. Dombeyi, sp. 62.



- Chione*, *Linn.*, Cyth. 59. pl. 132. f. 78.  
*cineta*, *Chemn.*, Ven. rugosa, sp. 74.  
*cingenda*, *Dillw.*, Ven. cancellata, sp. 19.  
*cingulata*, *Lamk.*, Ven. 78. pl. 161. f. 191.  
*cingulina*, ———? Ven. Berryi?  
*circinata*, *Born*, Cyth. 65. pl. 132. f. 104–106.  
*citrina*, *Lamk.*, Cyth. 86. pl. 132. f. 117, 118.  
*Cochinensis*, *Thorpe*, Ven. 37. pl. 156. f. 80.  
*cœlata*, *Menke*, Ven. spurca, sp. 49.  
*Columbiensis*, *Sowb.*, Ven. 29. pl. 155. f. 53, 54.  
*compressa*, *Sowb.*, *jun.*, Cyth. 13. pl. 128. f. 33, 34.  
*compta*, *Loven*, Art. 37. pl. 142. f. 45.  
*compta*, *Brod.*, Ven. 20. pl. 154. f. 32–34.  
*concentrica*, *Gmel.*, Art. 1. pl. 140. f. 1.  
*concinna*, *Sowb.*, Cyth. 94. pl. 132. f. 99, 100.  
*concinna*, *Sowb.*, *jun.*, Art. 9. pl. 140. f. 4.  
*consanguinea*, *C. B. Adams*, Cyth. 119. pl. 63. f. 203.  
*contusa*, *Reeve*, Art. 62. pl. 143. f. 70.  
*conularis*, *Lamk.*, Ven. scalarina, sp. 96.  
*convexa*, *Say*, Cyth. 90. pl. 132. f. 119.  
*corbis*, *Lamk.*, Ven. reticulata, sp. 10.  
*corbícula*, *Lamk.*, Cyth. 7. pl. 128. f. 37–39.  
*cor*, *Sowb.*, *jun.*, Ven. 72. pl. 160. f. 184.  
*corrugata*, *Gmel.*, Tap. 42. pl. 150. f. 121, 122.  
*corrugata*, *Reeve*, Art. 54. pl. 143. f. 63.  
*corrugata*, *Dillw.*, Cir. rugifera, sp. 13.  
*costata*, *Chemn.*, Cyth. 40. pl. 130. f. 70, 71.  
*costata*, *Brown*, Ven. striatula, sp. 92.  
*costellata*, *Sowb.*, Ven. 4. pl. 153. f. 14.  
*costellifera*, *Adams*, Ven. 46, pl. 157. f. 106.  
*costulata*, *Wood*, Ven. gallinula, sp. 79.  
*crassa*, *Quoy*, Ven. spurca, sp. 49.  
*crassatelloides*, *Conrad*, Cyth. 1. pl. 127. f. 1, 2, 3.  
*crassicosta*, *Quoy*, Tap. 63. p. 149. f. 93.  
*crassisulca*, *Lamk.*, not recognized.  
*crebrisulca*, *Lamk.*, Ven. 75. pl. 161, f. 187–189.  
*crenata*, *Gmel.*, Ven. crenulata, sp. 77.  
*crenifera*, *Sowb.*, Ven. 34. pl. 156. f. 73, 74.



- crenulata, *Chemn.*, Ven. 77. pl. 161. f. 190.  
 cretacea, *Reeve*, Art. 46. pl. 142. f. 51.  
 crocea, *Gray*, Cir. 14. pl. 139. f. 49-52.  
 Cumingii, *Sowb., jun.*, Tap. 41. pl. 150. f. 128.  
 Cumingii, *Sowb., jun.*, Ven. 65. pl. 157. f. 122.  
 Cumingii, *Reeve*, Art. 57. pl. 143. f. 64.  
 cuneata, *Lamk.*, Cir. æquivoca, sp. 4 ?  
 Cypria, *Sowb.*, Ven. 56. pl. 157. f. 113.  
 cyprinoides, *Anton*, Ven. mercenaria, sp. 91.  
 Cygnus, *Lamk.*, Cyth. 66. pl. 132. f. 107.  
 Cyrilli, *Phil.*, Cir. minima, sp. 16.  
 dactyloides, *Sowb., jun.*, Tap. 43. pl. 150. f. 129.  
 damaoides, *Gray*, Cyth. 4. pl. 127. f. 7-9.  
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 declivis, *Sowb., jun.*, Ven. 81. pl. 157. f. 123, 124.  
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 decorata, *Brod.*, Ven. 35. pl. 156. f. 77, 78.  
 decussata, *Linn.*, Tap. 52. pl. 150. f. 115, 115\*.  
 denticulata, *Sowb., jun.*, Tap. 43. pl. 150. f. 114.  
 Deshayesii, *Hanl.*, Tap. 22. pl. 146. f. 35-38.  
 dentaria, *Lamk.* (Cyth. 78), not recognized.  
 denticulata, *Quoy*, Ven. spurca, sp. 49.  
 Dieffenbachii, *Gray*, Dauna of New Zealand, not recognized.  
 Dione, *Linn.*, Cyth. 67. pl. 132. f. 110.  
 discina, *Lamk.*, Ven. casina, sp. 69, Young.  
 discors, *Sowb., jun.*, Tap. 68. pl. 151. f. 148-150.  
 discrepans, *Sowb.*, Ven. 55. pl. 155. f. 65.  
 discus, *Reeve*, Art. 10. pl. 140. f. 9.  
 dispar, *Chemn.*, Cir. 5. pl. 137. f. 10, 11, et pl. 163. f. 53, 54.  
 disrupta, *Sowb., jun.*, Tap. 44. pl. 149. f. 95.  
 disrupta, *Sowb., jun.*, Cyth. 117. pl. 163. f. 208, 209.  
 distans — ? Art. 2. pl. 140. f. 3.  
 divaricata, *Gmel.*, Cir. 3. pl. 137. f. 8, 9.  
 diversa, *Sowb., jun.*, Tap. 65. pl. 146. f. 41.  
 dysera, *Chemn.*, Ven. 59. pl. 157. f. 119.  
 Dolabella, *Sowb., jun.*, Cyth. 23. pl. 127. f. 15.  
 Dombeyii, *Lamk.*, Tap. 62. pl. 150. f. 118, et pl. 163. f. 118.  
 donacina, *Chemn.*, Ven. 108. pl. 159. f. 165-167.



- dorsata*, Lamk., Tap. turgida, sp. 17.  
 " *Dosin*," Adanson, Art. Adansoni, sp. 42.  
*dubia*, Sowb., Cyth. 2. pl. 127. f. 4.  
*Dunkeri*, Phil., Art. 7. pl. 140. f. 5.  
*duplicata*, Reeve, Art. 59. pl. 143. f. 67.  
*dysera*, Chemn., Ven. cancellata, sp. 19.  
*edulis*, Gmel., Tap. virginea, sp. 40.  
*effossa*, Hanl., Meroe 2. pl. 126. f. 11, 12.  
*elegans*, Koch, Cyth. 113. pl. 135. f. 163.  
*elegans*, Adams, Ven. 82. pl. 158. f. 138.  
*elegantina*, Lamk., Ven. striata, sp. 94.  
*elevata*, Say, Ven. crenifera, sp. 34?  
*elliptica*, Sowb., jun., Cyth. 114. pl. 135. f. 173, 174.  
*elliptica*, Brown, Tap. virginea, sp. 40.  
*encausta* ———? Ven. Amathusia, sp. 18.  
*entobapta*, Jonas, Ven. granulata, sp. 27.  
*erycina*, Penn., Ven. verrucosa, sp. 71.  
*erycina*, Linn., Cyth. 38. pl. 130. f. 69.  
*erycinella*, Lamk., Cyth. 41. pl. 130. f. 85.  
*erythrea*, Jonas, Cir. plebeja, sp. 15.  
*euglypta*, Phil., Tap. 5. pl. 145. f. 17.  
*exalbida*, Chemn., Ven. 83. pl. 161. f. 193.  
*exarata*, Phil., Tap. 4. pl. 145. f. 18.  
*exasperata*, Phil., Art. 55. pl. 143. f. 62.  
*excavata*, Hanl., Meroe, 5. pl. 126. f. 13, 14, et pl. 163. f. 16.  
*excisa*, Chemn., Art. 61. pl. 143. f. 69.  
*exilis*, Chemn., Cyth. zonaria, sp. 29.  
*exoleta*, Linn., Art. 12. pl. 141. f. 42, 43, 44.  
*expallescens*, Phil., Tap. 73. pl. 163. f. 161, 162.  
*fasciata*, Donov., Ven. 57. pl. 157. f. 114, 115.  
*fasciatus*, Costa (Cuneus), Tap. virginea, sp. 40.  
*fastigiata*, Sowb., jun., Cyth. 106. pl. 135. f. 158, 159.  
*ferruginea*, Reeve, Art. 29. pl. 142. f. 34.  
*festiva*, Paris Mus., Cyth. 47. pl. 130. f. 72.  
*fibula*, Reeve, Art. 45. pl. 142. f. 49.  
*flammea*, Lamk. (Ven. 84), not recognized.  
*flammiculata*, Lamk., Tap. 26. pl. 148. f. 56-61.  
*flexuosa*, Linn., Ven. 39. pl. 156. f. 85, 86.



- florida, *Lamk.*, Cyth. 53. pl. 136. f. 193-196.  
 florida, *Lamk.*, Tap. 32. pl. 149. f. 112, 113.  
*florida*, *Poli*, Tap. decussata, sp. 52.  
 floridella, *Lamk.*, Tap. 33. pl. 149. f. 96-99.  
 fluctifraga, *Sowb., jun.*, Ven. 26. pl. 154. f. 42, 43.  
 fluctuata, *Sowb., jun.*, Cyth. 79. pl. 136. f. 185, 186.  
 fluctuosa, *Gould*, Tap. 74. pl. 163. f. 163.  
 foliacea, *Phil.*, Ven. thiara, sp. 61.  
 formosa, *Sowb., jun.*, Cyth. 28. pl. 129. f. 47.  
 foveolata, *Sowb., jun.*, Ven. 80. pl. 154. f. 46.  
 fulminata, *Valenc.*, Cyth. 92. pl. 133. f. 137.  
 fumigata, *Sowb., jun.*, Ven. 102. pl. 159. f. 151-153.  
*fusca*, *Koch*, Cyth. lusoria, sp. 26.  
 fuscolineata, *Sowb.*, Tap. 69. pl. 151. f. 145,  
 galactites, *Lamk.*, Tap. 59. pl. 151. f. 132.  
 gallina, *Linn.*, Ven. 93. pl. 161. f. 202, 203.  
 gallinula, *Lamk.*, Ven. 71. pl. 162. f. 225, 226.  
*gallus*, *Gmel.*  
 gemma, *Totten*, Ven. 101. pl. 158. f. 141.  
 geographica, *Chenn.*, Tap. 49. pl. 87-91.  
 gibbia, *Lamk.*, Cir. 2. pl. 137. f. 4-7.  
 gigantea, *Linn.*, Cyth. 57. pl. 131. f. 86.  
*gigantea*, *Sowb.*, Art. ponderosa, sp. 3.  
*glandina*, *Lamk.*, Tap. geographica, sp. 50.  
 glauca, *Reeve*, Art. compta, sp. 37.  
 Gnidia, *Brod. et Sowb.*, Ven. pl. 154. f. 25.  
 gracilior, *Sowb., jun.*, Cyth. 10. pl. 128. f. 32.  
 granulata, *Gmel.*, Ven. 27. pl. 155. f. 47-49.  
 granulifera, *Sowb., jun.*, Clem. 3. pl. 151. f. 154.  
*graphica*, *Lamk.* = Cyth. petechialis, sp. 25.  
 grata, *Say*, Tap. 71. pl. 151. f. 152.  
 gravescens, *Menke*, Ven. 62. pl. 160. f. 170-173.  
 grisea, *Lamk.* (Ven. 19), a *Tapes* not recognized.  
 Gruneri, *Phil.*, Art. 41. pl. 142. f. 47.  
*Guineensis*, *Lamk.*, Cyth. circinata, sp. 65.  
 Hanleyana, *Sowb., jun.*, Cyth. 16. pl. 128. f. 23, 24.  
 Hanleyi, *Sowb., jun.*, Tap. 37. pl. 149. f. 102, 103.  
 Hebræa, *Lamk.*, Cyth. 100. pl. 134. f. 143-148.



- hepatica, *Phil.*, Art. 31. pl. 142. f. 35, 36.  
 hiantina, *Lamk.*, Tap. flammiculata, sp. 26.  
 hieroglyphica, *Conrad*, Cyth. 105. pl. 134. f. 150.  
 Hindsii, *Hanl.*, Cyth. 8. pl. 128. f. 27.  
 Histrio, *Gmel.*, Cyth., not recognized.  
 histrionica, *Sowb.*, Ven. 32. pl. 155. f. 52.  
 ignobilis, *Anton*, Tap. intermedia, sp. 49.  
 inæqualis, *Say*, Venus, not recognized.  
 incerta, *Sowb.*, jun., Tap. 30. pl. 148. f. 77.  
 incerta, *Sowb.*, jun., Cyth. 18. pl. 128. f. 17.  
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 inconspicua, *Sowb.*, Cyth. 92. pl. 132. f. 133, 134.  
 indecora, *Phil.*, Cyth. 78. pl. 136. f. 179.  
 Indica, *Hanl.*, Tap. 55. pl. 151. f. 146, 147.  
 inflata, *Sowb.*, jun., Art. 22. pl. 141. f. 25.  
 inflata, *Sowb.*, jun., Cyth. 89. p. 133. f. 127, 128.  
 imbricata, *Sowb.*, jun., Ven. 36. pl. 156. f. 81, 82.  
 immaculata, *Lamk.* (Cyth. 42), not recognized.  
 impar, *Lamk.*, Cyth. 46. pl. 131. f. 77.  
 impressa, *Anton*, Ven. flexuosa, sp. 39.  
 impudica, *Chemn.*, Cyth. 30. pl. 129. f. 55-58.  
 innocens, *Sowb.*, jun., Cyth. 118. pl. 163. f. 210.  
 inquinata, *Lamk.* (Ven. 88), not recognized.  
 intermedia, *Sowb.*, jun., Cyth. 12. pl. 128. f. 35.  
 interrupta, *Lamk.*, Cyth.; a *Lucina*?  
 intermedia, *Quoy*, Tap. 46. pl. 146. f. 39, 40.  
 intersecta, *Sowb.*, Ven. 33. pl. 155. f. 59, 60.  
 iridescent, *Sowb.*, jun., Cyth. 120. p. 163. f. 211.  
 Isocardia, *Dunker*, Art. 18. pl. 141. f. 29, 30.  
 Japonica, *Gmel.*, Ven. striata, sp. 94.  
 Japonica, *Reeve*, Art. 51. pl. 143. f. 60.  
 juvenilis, *Gmel.*, Art. 67. pl. 144. f. 74-76.  
 juvenis, *Chemn.*, Art. juvenilis, sp. 67.  
 Kellettii, *Hinds*, Ven. 53. pl. 155. f. 64.  
 Kingii, *Gray*, Cyth. 92\*. pl. 133. f. 129-132.  
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 Kroyeri, *Phil.*, Art., not known.



- Labuana*, *Adams*, Ven. 95. pl. 162. f. 214.  
*lacerata*, *Hanl.*, Ven. 3. pl. 152. f. 3, 4.  
*lactea*, *Donov.*, Ven. casina, sp. 69.  
*lactea*, *Lamk.*, Cyth. 47, not recognized.  
*læta*, *Linn.*, Cyth. 84. pl. 133. f. 123, 124.  
*lævigata*, *Sowb., jun.*, Ven. 103. pl. 159. f. 156-158.  
*lagopus*, *Lamk.* (Ven. 23), not recognized.  
*Lamarekii*, *Gray*, Ven. 13. pl. 153. f. 20, 21.  
*Lamarekii*, *Gray*, Cyth. Kingii, sp. 92\*.  
*Lajonkarii*, *Payr.*, Tap. 57. pl. 150. f. 120.  
*lamellata*, *Lamk.*, Ven. 67. pl. 160. f. 175.  
*lamellata*, *Reeve*, Art. 58. pl. 143. f. 65.  
*laminata*, *Reeve*, Art. 71. pl. 144. f. 86, 87.  
*laminosa*, *Turton*, Ven. striatula, sp. 92.  
*laqueata*, *Sowb., jun.*, Ven. 91. pl. 153. f. 15.  
*laterisulca*, *Lamk.*, Tap. 24. pl. 148. f. 67-76.  
*Lemannii*, *Payr.*, Ven. verrucosa, sp. 71.  
*lenticularis*, *Sowb.*, Ven. 84. pl. 161. f. 194.  
*lenticularis*, *Sowb., jun.*, Art. 74. pl. 144. f. 81.  
*lentiginosa*, *Chemn.*, Cyth. 109. pl. 135. f. 160-162.  
*lepida*, *Chemn.*, Cyth. rosea, sp. 68.  
*leucodon*, *Sowb.*, Ven. Californiensis, sp. 24.  
*ligula*, *Anton*, Cyth. unicolor.  
*lilacina*, *Lamk.*, Cyth. 49. pl. 130. f. 74.  
*Lima*, *Sowb., jun.*, Tap. 67. pl. 151. f. 144.  
*limatula*, *Sowb., jun.*, Cyth. 98. pl. 200, 201.  
*lineta*, *Pull.*, Art. 13. pl. 141. f. 16.  
*lineata*, *Sowb., jun.*, Cyth. 15. pl. 128. f. 26.  
*lirata*, *Phil.*, Tap. 3. pl. 145. f. 19.  
*lirata*, *Sowb., jun.*, Art. 73. pl. 144. f. 85.  
*Listeri*, *Gray*, Ven. 5. pl. 152. f. 7-9.  
*lithoidea*, *Jonas*, Tap. 47. pl. 150. f. 126.  
*litterata*, *Chemn.*, Tap. 18. pl. 147. f. 43-49.  
*livida*, *Phil.*, Art. 47. pl. 142. f. 55.  
*longilunata*, *Reeve*, Art. angulosa, sp. 27.  
*Lorenziana*, *Chemn.*, Cyth. castrensis, sp. 103.  
*lubrica*, *Brod.*, Cyth. purpurata, sp. 36.  
*Lucinalis*, *Lamk.*, Cyth., not recognized.



- lucinoides*, *Reeve*, Art. 33. pl. 142. f. 39.  
*lunaris*, *Lamk.*, Art. 28. pl. 142.  
*lunulata*, *Lamk.*, Ven. macrodon, sp. 41.  
*lupinaria*, *Lesson*, Cyth. 69. pl. 132. f. 111.  
*lupinus*, *Poli*, Art. lunaris, sp. 28.  
*lusoria*, *Lamk.*, Cyth. 26. pl. 128. f. 40-42.  
*lutea*, *Koch*, Cyth. pannosa, sp. 82.  
*Luzonica*, *Sowb., jun.*, Tap. 29. pl. 149. f. 100, 101.  
*lyra*, *Hant.*, Ven. 76. pl. 161. f. 192.  
*lyrata*, *Sowb., jun.*, Cyth. 33. pl. 129. f. 61.  
*macilenta*, *Reeve*, Art. 25. pl. 141. f. 32.  
*mactracea*, *Brod.* (Ven), Pro. Zool. Soc. 1835, not recognized.  
*macrodon*, *Lamk.*, Ven. 41. pl. 156. f. 88-90.  
*mactroides*, *Dillw.*, Cyth. 11. pl. 128. f. 36.  
*maculata*, *Linn.*, Cyth. 60. pl. 131. f. 93, 94, 97.  
*magnifica*, *Sowb., jun.*, Ven. 2. pl. 152. f. 5.  
*Malabarica*, *Chemn.*, Tap. 13. pl. 145. f. 6, 7, 8.  
*Manillæ*, *Sowb., jun.*, Cyth. 77. pl. 136. f. 180, 181.  
*marica*, *Linn.*, Ven. 47. pl. 157. f. 107-110.  
*marmorata*, *Lamk.*, Venus, not recognized.  
*maxima*, *Phil.*, Tap. 46. pl. 150. f. 127.  
*membranaceus*, *Costa* (Pect.), Ven. casina, sp. 69.  
*menstrualis*, *Menke*, Meroe 8. pl. 163. f. 17.  
*mercenaria*, *Linn.*, Ven. 91. pl. 162. f. 204, 205.  
*meretrix*, *Linn.*, Cyth. 24. pl. 129. f. 48, 50.  
*Meroe* = *Meroe picta*, sp. 1.  
*meroæformis*, *Sowb., jun.*, Tap. 75. pl. 163. f. 160.  
*mesodesma*, *Quoy*, Ven. spurca, sp. 49.  
*minima*, *Mont.*, Cir. 16. pl. 138. f. 18-21. et pl. 163. f. 55-58.  
*minuta*, *Koch*, Venus, Ph. t. 3. f. 8, not known.  
*mixta*, *Lamk.*, Cir. æquivoca, sp. 4?  
*modesta*, *Reeve*, Art. 30. pl. 42. f. 37.  
*modesta*, *Sowb.*, Cyth. 55. pl. 136. f. 184.  
*modesta*, *Phil.*, Cyth. Kingii, sp. 92\*.  
*monilifera*, *Sowb., jun.*, Ven. 11. pl. 153. f. 19.  
*morphina*, *Lamk.*, Cyth. 27. p. 129. f. 59, 60.  
*Mortoni*, *Conrad*, Ven. præparea, sp. 89.  
*multicostata*, *Sowb.*, Ven. 7. pl. 152. f. 10.



- multiradiata, *Sowb., jun.*, Cyth. 39. pl. 130. f. 76.  
 multispinosa, *Sowb., jun.*, Cyth. 70. pl. 132. f. 112.  
 multistriata, *Sowb., jun.*, Cyth. 56. pl. 136. f. 177.  
*muscaria*, *Lamk.*, Cir. dispar, sp. 5.  
 nanus, *Reeve*, Art. 19. pl. 141. f. 31.  
*nebulosa*, *Chemn.*, Tap. pinguis, sp. 15.  
*nebulosa*, *Pult.*, Tap. aurea, sp. 38.  
*neglecta*, *Sowb.*, Ven. subrostrata, sp. 21.  
*nitens*, *Turt.*, Tap. aurea, sp. 38.  
 nitens, *Reeve*, Art. 4. pl. 140. f. 11.  
 nitidula, *Lamk.*, Cyth. 14. pl. 128. f. 25.  
*nivea*, *Hanley*, Cyth. umbonella, sp. 37.  
 nobilis, *Reeve*, Cyth. 35. pl. 130. f. 68.  
*nocturna*, *Chemn.*, Tap. litterata, sp. 18.  
 nodulosa, *Sowb., jun.*, Ven. 14. pl. 153. f. 16.  
*notata*, *Say*, Ven. mercenaria, sp. 91.  
*nucleus*, *Lamk.*, Tap. pullastra, sp. 51.  
 nummulina, *Lamk.*, Cir. 9. pl. 138. f. 27.  
*Nuttallii*, *Conrad*, Venus, not recognized.  
 obesa, *Sowb., jun.*, Cyth. 50. pl. 131. f. 83, 84.  
*obliqua*, *Anton*, Ven. merceneria, sp. 91.  
 obliquata, *Hanl.*, Cyth. 85. pl. 132. f. 125, 126.  
 oblonga, *Gray*, Ven. 86. pl. 161. f. 197.  
 obscura, *Brod.* (Ven.), Pro. Zool. Soc. 1835, not recognized.  
*obsoleta*, *Chemn.*, Tap. corrugata, sp. 42.  
 oculata, *Say*, Cyth., not recognized.  
 opaca, *Sowb.*, Tap. 45. pl. 150. f. 123.  
*opima*, *Gmel.*, Tap. pinguis, sp. 15.  
*Orbignii*, *Dunker*, Art. 38. pl. 142. f. 54.  
*ornata*, *Lamk.*, Cyth. 104. pl. 134. f. 149.  
 orientalis, *Sowb., jun.*, Art. 21. pl. 144. f. 79.  
 ornatissima, *Brod.*, Ven. 15. pl. 153. f. 24.  
 ovata, *Penn.*, Ven. 43. pl. 157. f. 99, 100.  
*ovulea*, *Lamk.*, Tap. turgida, sp. 17.  
 ovum, *Hanl.*, Cyth. 32. pl. 129. f. 45.  
 pachyphylla, *Jonas*, Venus, not recognized.  
 pacifica, *Dillw.*, Cyth. costata, sp. 40.  
 pallescens, *Sowb.*, Cyth. 91. pl. 132. f. 135.



- palustris*, *Marce*, Tap. pullastra, sp. 51.  
*pannosa*, *Sowb.*, Cyth. 82. pl. 133. f. 140–142, et pl. 163. f. 202, 203.  
*Paphia*, *Linn.*, Ven. 50. pl. 155. f. 61.  
*papilionacea*, *Lamk.*, Tap. 2. pl. 145. f. 12.  
*papyracea*, *Gray*, Clem. 1. pl. 151. f. 155.  
*Patagonica*, *Phil.*, Art. 6. pl. 140. f. 8.  
*paupercula*, *Chemn.*, Ven. Kochii, sp. 105.  
*pectinata*, *Linn.*, Cir. 1. pl. 137. f. 1, 2, 3.  
*pectinata*, *Sowb.* (Cyth.), Pro. Zool. Soc. 1835, not recognized.  
*pectinula*, *Lamk.*, Ven. ovata, sp. 43.  
*pectoralis*, *Lamk.*, Cyth. 48. pl. 130. f. 75.  
*pectorina*, *Lamk.*, Ven. 30. pl. 155. f. 55, 56.  
*pellucida*, *Lamk.*, Cyth. 93. pl. 136. f. 190.  
*penicillata*, *Reeve*, Art. 26. pl. 141. f. 28.  
*Pennantii*, *Forbes*, Ven. striatula, sp. 92.  
*perforans*, *Mont.*, Tap. pullastra, sp. 51.  
*Peronii*, *Lamk.*, Ven. 97. pl. 162. f. 224.  
*perplexa*, *Sowb., jun.*, Tap. 31. pl. 148. f. 80.  
*Peruviana*, *Sowb.*, Ven. 54. pl. 155. f. 66.  
*petalina*, *Lamk.*, Tap. 35. pl. 149. f. 104.  
*petechialis*, *Lamk.*, Cyth. 25. pl. 129. f. 51, 52.  
*Pfeifferi*, *Phil.*, Cyth. lentiginosa, sp. 109.  
*phaseolina*, *Lamk.* (Ven. 64) Tapes? not recognized.  
*Philippinarum*, *Adams*, Tap. 54. pl. 151. f. 139–141.  
*Philippinarum*, *Hanl.*, Cyth. 52. pl. 136. f. 176. et pl. 163. f. 206–7.  
*picta*, *Schum.*, Meroe 1. pl. 126. f. 1, 2.  
*picta*, *Lamk.*, Cyth. ornata, sp. 104.  
*pinguis*, *Chemn.*, Tap. 15. pl. 146. f. 20–23.  
*piperita*, *Sowb., jun.*, Cyth. 51. pl. 136. f. 175.  
*placida*, *Phil.*, Ven. roborata, sp. 60.  
*placumella*, *Lamk.*, Cir. æquivoca, sp. 4.  
*plagia*, *Jeffreys*, Tap. pullastra, sp. 51.  
*plana*, *Reeve*, Art. 11. pl. 140. f. 10.  
*planata*, *Gray*, Circe, not recognized.  
*planulata*, *Brod.*, Cyth. 24. pl. 127. f. 13.  
*plebeja*, *Hanl.*, Cir. 15. pl. 138. f. 33–37.  
*plicata*, *Gmel.*, Ven. 66. pl. 150. f. 174.  
*plicatina*, *Lamk.*, Cir. 11. pl. 138. f. 31, 32.



- polita*, *Sowb., jun.*, Cyth. 22. pl. 127. f. 14.  
*polita*, *Sowb., jun.*, Tap. 12. pl. 145. f. 15, 16.  
*polita*, *Quoy*, Ven. 104. pl. 158. f. 139, 140.  
*ponderosa*, *Gray*, Art. 3. pl. 140. f. 2.  
*ponderosa*, *Koch* = Cyth. *damaoides*, sp. 4.  
*præparea*, *Say*, Ven. 89. pl. 161. f. 200.  
*Prideauxiana*, *Couch*, Ven. *striatula*, sp. 92.  
*prora*, *Conrad*, Cyth. *læta*, sp. 84.  
*prostrata*, *Linn.*, Art. 70. pl. 144. f. 80.  
*pubescens*, *Phil.*, Art. 64. pl. 143. f. 72.  
*puerpera*, *Linn.*, Ven. 1. pl. 152. f. 1, 2.  
*pulchra*, *Gray*, Cyth. 43. pl. 130. f. 73.  
*pulchella*, *Lamk.*, Tap. *floridella*, sp. 33.  
*pulicaria*, *Brod.*, Ven. *cingulata*, sp. 78.  
*pulicaria*, *Lamk.*, Cir. *dispar*, sp. 5.  
*pullastra*, *Wood*, Tap. 51. pl. 149. f. 85, 86.  
*pumila*, *Lamk.* (Ven. 86), not recognized.  
*punctata*, *Chemn.*, Tap. *litterata*, sp. 18.  
*punctata*, *Lamk.* (Cyth. 54), a *Lucina*.  
*punctifera*, *Gray*, Ven. 40. pl. 156. f. 87.  
*punctifera*, *Lamk.*, Tap. *litterata*, sp. 18.  
*purpurata*, *Sowb., jun.*, Tap. 48. pl. 150. f. 124, 125.  
*purpurata*, *Lamk.*, Cyth. 36. pl. 130. f. 67.  
*pygmæa*, *Lamk.*, Ven. 12. pl. 156. f. 69-72.  
*quadrangularis*, *Adams*, Ven. 85. pl. 161. f. 196.  
*Quoyi*, *Hanl.*, Cir. *rivularis*?  
*radiata*, *Chemn.*, Tap. *recens*, sp. 23.  
*radiata*, *Sowb.*, Cyth. 9. pl. 128. f. 28-31.  
*radiata*, *Chemn.*, Ven. *crenifera*, sp. 34?  
*radiata*, *Phil.*, Ven. *ovata*, sp. 43.  
*radiata*, *Reeve*, Art. *amphidesmoides*, sp. 15.  
*Ranella*, *Lamk.*, Cir. *gibbia*, sp. 2.  
*rariflamma*, *Lamk.*, Tap. 1. pl. 145. f. 3-5.  
*recens*, *Chemn.*, Tap. 23. pl. 148. f. 62-66.  
*reflexa*, *Mont.*, Ven. *casina*, sp. 69.  
*resticulata*, *Sowb., jun.*, Ven. 8. pl. 153. f. 23.  
*reticulata*, *Linn.*, Ven. 10. pl. 153. f. 11-13.  
*retifera*, *Lamk.* (Ven. 50), not recognized.



- rhombifera*, Brug., Tap. Malabarica, sp. 13.  
*rhomboides*, Lenn., Tap. virginea, sp. 40.  
*rigida*, Dillw., Ven. rugosa, sp. 74.  
*rimosa*, Phil., Tap. 11. pl. 146. f. 29.  
*rimularis*, Lamk., Tap. 27. pl. 148. f. 55.  
*rivularis*, Menke? Cir. 12. pl. 139. f. 46-48.  
*roborata*, Hanl., Ven. 60. pl. 157. f. 116-118.  
*rosalina*, Rang, Ven. 70. pl. 60. f. 181.  
*rosea*, Brod., Cyth. 68. pl. 132. f. 108.  
*rostrata*, Koch, Cyth. 75. pl. 133. f. 122.  
*rostrata*, Sowb., jun., Ven. 42. pl. 156. f. 91.  
*rotundata*, Linn., Tapes papilionacea, sp. 2.  
*rubicunda*, Phil., Art. 35. pl. 142. f. 40, 41.  
*rubiginosa*, Phil., Cyth. varians, sp. 95.  
*rubra*, Gmel., Cyth. circinata, sp. 65.  
*rufa*, Lamk., Tap. turgida, sp. 17.  
*rufa*, Lamk., Art. 66. pl. 144. f. 77.  
*rugifera*, —? Cir. 13. pl. 139. f. 44, 45.  
*rugosa*, Lamk., Cir. rugifera, sp. 13.  
*rugosa*, Gmel., Ven. 74. pl. 160. f. 185, 186.  
*Rusterucii*, Payr., Ven. casina, sp. 69.  
*rutila*, Sowb., jun., Cyth. 116. pl. 163. f. 205.  
*Sarniensis*, Turton, Tap. virginea, sp. 40.  
*Sayana*, Conrad, Cyth. convexa, sp. 90.  
*scabriuscula*, Phil., Art. 50. f. 59.  
*scabra*, Hanl., Ven. 45. pl. 157. f. 101, 102.  
*scalaris*, Menke, Art. 68. pl. 144. f. 78.  
*scalarina*, Lamk., Ven. 96. pl. 162. f. 215-220.  
*Scotica*, Lamk. (Ven. 55), not recognized.  
*scripta*, Linn., Cir. 7. pl. 139. f. 38-43.  
*scripta*, Linn., Meroe 4. pl. 126. f. 3-8.  
*sculpta*, Reeve, Art. 14. pl. 141. f. 15.  
*semicancellata*, Koch, Ven. donacina, sp. 108.  
*semilamellosa*, Chénu, Cyth. lupinaria, sp. 69.  
*seminuda*, Phil., Meroe 3. pl. 126. f. 15.  
*semisulcata*, Sowb., jun., Cyth. 42. pl. 131. f. 82.  
*semirugata*, Phil., Tap. 9. pl. 145. f. 12.  
*Senegalensis*, Dillw., Tap. pullastra, sp. 51.



- sericea*, *Reeve*, Art. 36. pl. 142. f. 42.  
*Sieboldii*, *Reeve*, Art. 53. pl. 143. f. 57.  
*simillima*, *Sowb., jun.*, Ven. 16. pl. 153. f. 17.  
*similis*, *Sowb., jun.*, Clem. 2. pl. 151. f. 156.  
*simplex*, *Sowb., jun.*, Cyth. 54. pl. 136. f. 182, 183.  
*simplex*, *Habl.*, Art. 8. pl. 140. f. 6.  
*sinuata*, *Turton* (Ven.), Art. lineta, sp. 13.  
*sinuata*, *Turton*, Tap. aurea, sp. 38.  
*sinuosa*, *Lamk.*, Tap. 14. pl. 145. f. 10.  
*sinuosa*, *Pennant*, *Lucinopsis undata*.  
*Sinensis*, *Chemn.*, Cyth. 44. pl. 131. f. 79, 80.  
*Solandri*, *Gray*, Meroe 7. pl. 126. f. 10, et pl. 163. f. 18, 19.  
*solidula*, *Sowb., jun.*, Art. 34. pl. 142. f. 38.  
*spathulata*, *Sowb., jun.*, Cyth. 45. pl. 131. f. 78, 79.  
*spissa*, *Quoy*, *Venus spurca*, sp. 49.  
*splendens*, *Sowb., jun.*, Cyth. 115. pl. 135. f. 167.  
*spurca*, *Sowb.*, Ven. 49. pl. 156. f. 92-98.  
*squalida*, *Sowb.*, Cyth. 61\*. pl. 131. f. 87-89.  
*squamosa*, *Linn.*, Ven. 38. pl. 156. f. 83, 84.  
*straminea*, *Conrad*, Tap. 72. pl. 151. f. 151.  
*striata*, *Chemn.*, Ven. 94. pl. 162. f. 207-213.  
*striata*, *Gray?* Cyth. 87. pl. 132. f. 113-115.  
*striatula*, *Costa*, Ven. 92. pl. 62. f. 134, 135.  
*striatissima*, *Sowb., jun.*, Ven. 44. pl. 157. f. 103-105.  
*striatissima*, *Sowb., jun.*, Art. 65. pl. 144. f. 71-84.  
*stultorum*, *Gray*, Cyth. crassatelloides, sp. 1.  
*Stultzii*, *Dovan* (Venus), Cir. plicatina?  
*strigosa*, *Lamk.*, Ven. 99. pl. 162. f. 222, 223.  
*strigosa*, *Costa* (Pect.), Ven. verrucosa, sp. 71.  
*Stutchburii*, *Gray*, Ven. 28. pl. 155. f. 50, 51.  
*subelliptica*, *Sowb., jun.*, Cyth. 111. pl. 135. f. 169.  
*subimbricata*, *Sowb.*, Ven. 23. pl. 154. f. 35-38.  
*subinflata*, *Sowb., jun.*, Cyth. 88. pl. 133. f. 116.  
*subquadrata*, *Habl.*, Art. 24. pl. 141. f. 27.  
*subquadrata*, *Sowb., jun.*, Tap. 58. pl. 150. f. 119.  
*subquadrata*, *Sowb.*, Meroe 5. pl. 126. f. 9.  
*subrosea*, *Gray*, Art. 52. pl. 143. f. 61.  
*subrostrata*, *Reeve*, Ven. *Lamarekii*, sp. 13.

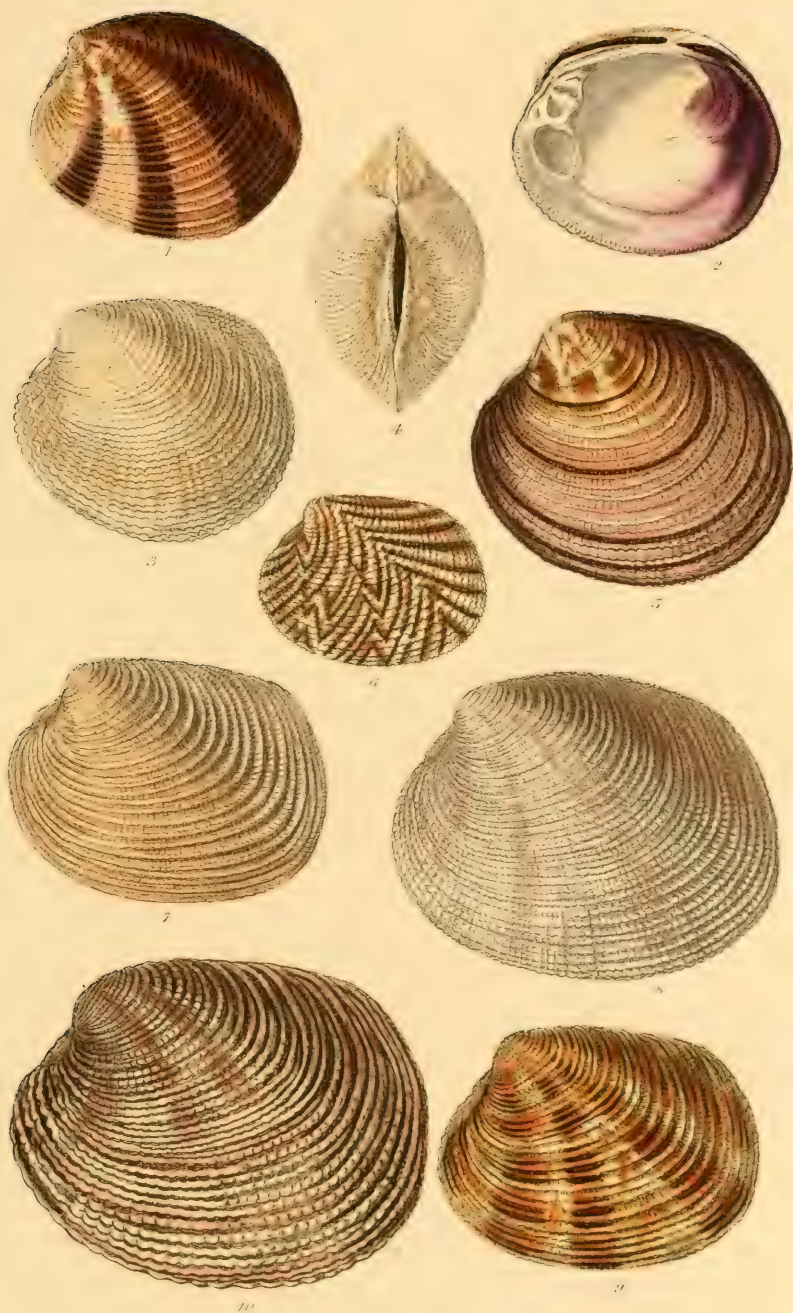


- subrostrata, *Lamk.*, Ven. 21. pl. 154. f. 39.  
 subrugosa, *Sowb.*, Ven. 52. pl. 155. f. 63.  
 subnodulosa, *Hanl.*, Ven. Wood's Supp. pl. 16. f. 9, not recognized.  
 subpellucida, *Sowb., jun.*, Cyth. 94. pl. 133. f. 136.  
 subtrigona, *Sowb., jun.*, Art. 17. pl. 141. f. 21.  
 substriata, *Mont.*, Tap. 56. pl. 150. f. 116, 117.  
 subsulcata, *Menke*, Ven. subrugosa, sp. 52.  
 sulcaria, *Lamk.*, Tap. 21. pl. 146. f. 30-32.  
 sulcata, *Brown*, Ven. striatula, sp. 92.  
 sulcatina, *Lamk.*, Cyth. 101. pl. 134. f. 145, 146.  
 sulcosa, *Phil.*, Tap. 8. pl. 145. f. 13, 14, et pl. 163. f. 158.  
 Tellinoidea, *Sowb., jun.*, Cyth. 76. pl. 136. f. 191.  
 tenuilamellata, *Sowb., jun.*, Art. 60. pl. 143. f. 68.  
 tenuilamellata, *Sowb., jun.*, Ven. 90. pl. 161. f. 195.  
 tenuis, *Sowb., jun.*, Art. 23. pl. 141. f. 22.  
 tenuistriata, *Sowb., jun.*, Tap. 28. pl. 148. f. 78, 79.  
 tenuistriata, *Lamk.*, (Cyprina), Art. Chinensis, sp. 20.  
 tessellata, *Adams*, Tap. 66. pl. 151. f. 142, 143.  
 testudinalis, *Lamk.*, Cir. æquivoca, sp. 4.  
 textile, *Gmel.*, Tap. 10. pl. 145. f. 26, 27, 28.  
 texturata, *Lamk.*, Tap. 39. pl. 149. f. 111.  
 thiara, *Dillw.*, Ven. 61. pl. 158. f. 125-131.  
 tigerina, *Lamk.*, Cyth., a *Lucina*.  
 tigrina, *Lamk.*, Cyth. 107. pl. 135. f. 155-157.  
 torrida, *Reeve*, Art. 39. pl. 142. f. 46.  
 tortuosa, *Brod.*, Cyth. 63. pl. 132. f. 102, 103.  
 tricolor, *Sowb.*, Tap. 70. pl. 151. f. 153.  
 trigona, *Reeve*, Art. 16. pl. 141. f. 29.  
 trigona, *Reeve*, Cyth. 74. See *Artemis*.  
 trigonella, *Lamk.*, Cyth. 17. pl. 128. f. 16.  
 trimaculata, *Lamk.*, Cyth. 102. pl. 134. f. 147.  
 tripla, *Linn.*, Cyth. 6. pl. 128. f. 18-22.  
 triradiata, *Gmel.*, Tap. pinguis, sp. 15.  
 tristis, *Lamk.*, Ven. striata, sp. 94.  
 truncata, *Lamk.* (Ven. 49), Tap. decussata?  
 tumefacta, *Sowb., jun.*, Cir. 10. pl. 138. f. 28-30.  
 tumida, *Sowb., jun.*, Tap. 64. pl. 146. f. 42.  
 turgida, *Lamk.*, Tap. 17. pl. 147. f. 53, 54.



- umbonella, *Lamk.*, Cyth. 37. pl. 130. f. 63-66, et pl. 163. f. 204.  
*undata*, *Penn.*, Lucinopsis, pl. 144. f. 88, 89.  
*undatella*, *Sowb.*, Ven. 22. pl. 153. f. 22.  
*undatina*, *Lamk.*, Cir. 8. pl. 138. f. 22-26.  
*undulata*, *Sowb., jun.*, Cyth. 21. pl. 127. f. 12.  
*undulosa*, *Lamk.*, Ven. 107. pl. 158. f. 142-146.  
*unicolor*, *Sowb.*, Cyth. 61. pl. 131. f. 90, 91.  
*vaginalis*, *Menke*, Meroe excavata, sp. 5.  
*variabilis*, *Sowb.*, Ven. undulosa, sp. 107.  
*variabilis*, *Born*, Tap. laterisulca?  
*variabilis*, *Linn.*, Ven. cancellata, sp. 8.  
*varians*, *Hanl.*, Cyth. 95. pl. 133. f. 138, 139.  
*varicosa*, *Sowb., jun.*, Ven. 58. pl. 155. f. 67.  
*variegata*, *Gray*, Art. 72. pl. 144. f. 83.  
*variegata*, *Hanl.*, Tap. 61. pl. 151. f. 133, 138.  
*veneriformis*, *Lamk.*, Ven. donacina, sp. 108.  
*Venetiana*, *Lamk.*, Cyth. 97. pl. 136. f. 197-199.  
*ventricosa*, *Brit. Mus.*, Cyth. 5. pl. 127. f. 6.  
*vermiculosa*, *Lamk.*, Tap. aurea, sp. 38.  
*verrucosa*, *Linn.*, Ven. 71. pl. 60. f. 182, 183.  
*violacea*, *Gmel.*, Ven. granulata, sp. 27.  
*violacea*, *Schum.*, Cir. scripta, sp. 7.  
*violacea*, *Quoy*, Ven. spurca, sp. 49.  
*virago*, *Loven*, Tap. virginea, sp. 40.  
*virginea*, *Linn.*, Tap. 40. pl. 149. f. 81-84.  
*virginea*, *Adams*, Cyth. 3. pl. 127. f. 5.  
*vulgaris*, *Sowb.*, Tap. pullastra, sp. 51.  
*vulnerata*, *Brod.*, Cyth. 72. pl. 131. f. 95, 96.  
*vulvina*, *Lamk.* (Ven. 75), not recognized.  
*Yatei*, *Gray*, Ven. 68. pl. 155. f. 68.  
*ziczac*, *Linn.*, Ed. 10? Ven. cancellata, sp. 19.  
*zonaria*, *Lamk.*, Cyth. 29. pl. 129. f. 53, 54.  
*Zelandica*, *Quoy*, Venus, not recognized.

































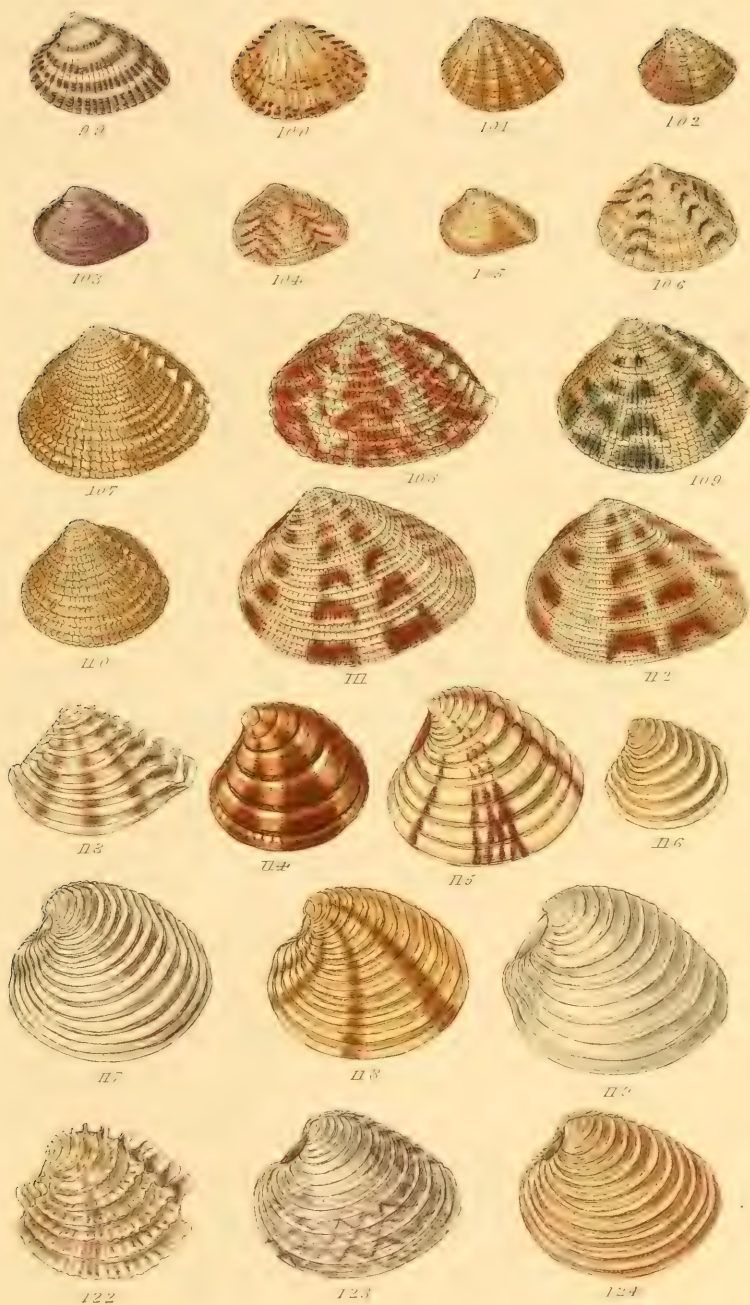
























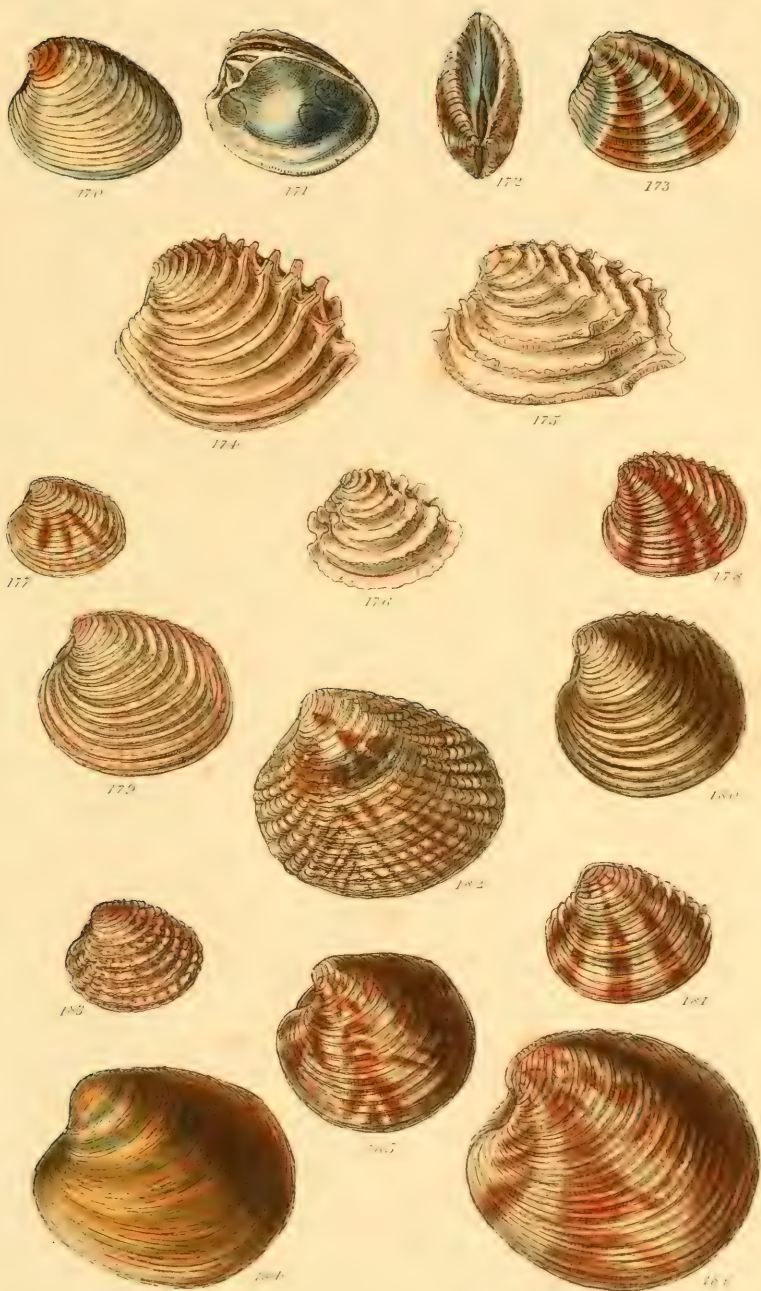








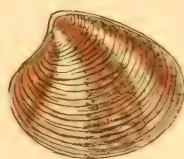
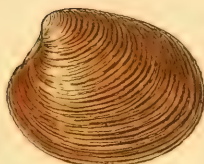
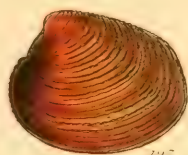
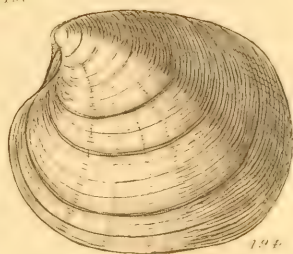
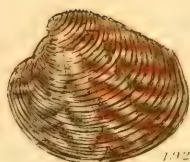
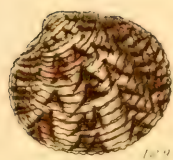
















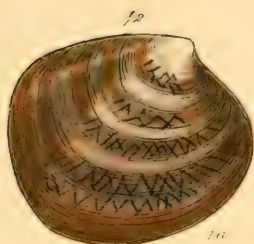








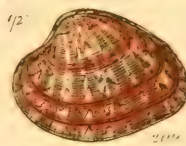
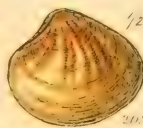




*Murex*



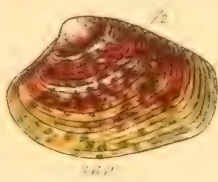
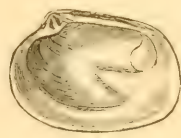
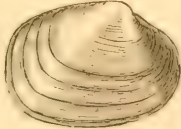
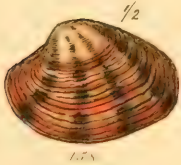
*Cytherea*



*Cyprina*



*Tapes*









## MONOGRAPH OF THE GENUS

## VENERUPIS.

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*Fam. Veneridæ.*


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*Char. Gen.* Testa æquivalvis, inæquilateralis, irregularis, plerumque oblonga; impressionibus muscularibus duabus subreniformibus; pallii impressione sinu magno; dentibus cardinalibus duobus et tribus compressis.

The characters of this genus so nearly resemble those of the rock-inhabiting species of *Tapes*, that it is difficult to separate some of the species. They are more irregular in their growth, are generally laminated concentrically, sometimes have the margins of the valves gaping, and have more compressed and produced cardinal teeth. The separation of this genus from the *Petricolæ* is also difficult, and even of doubtful expediency. In the *Venerupis* however the concentric laminæ are the most prominent.

1. VENERUPIS IRUS (pl. clxiv. f. 1, and *var.*? pl. clxv. f. 31, 32), *Linn.* (Donax). *Tellina cornubiensis*, *Pennant*, *Brit. Zool.* *Cuneus foliatus*, *Da Costa*.

V. testâ pallidâ, compressâ, oblongâ, subquadratâ, posticè subrotundatim angulatâ, medio depressâ, anticè brevi; radiatim striatâ, concentricè laminis tenuibus fimbriatis, posticè productionibus cinctâ; intus pallidè fulvâ.

This common British shell is found imbedded in limestone rocks on the coasts of Ireland, and the southern coasts of England and Wales. The varieties f. 31, 32, are doubtful, but not sufficiently characteristic to found a separate species.

2. VENERUPIS MACROPHYLLA (pl. clxv. f. 20), *Deshayes*, *Museum Catalogue* and *Pro. Zool. Soc.* 1853.

V. testâ albâ, oblongâ, posticè vix angulatâ, anticè brevi, ob-



tusâ; omnino radiatim striatâ, laminis tenuissimis, cancellatis, productis, laqueatis, posticè productionibus cinctâ.

This beautiful shell differs from our *V. Irus* in being much lighter, more rounded, and having the laminæ more produced, foliated, and *cancellated*.

Philippines, *Cuming*.

3. *VENERUPIS EXOTICA* (pl. clxiv. f. 7), *Hanley*, Descriptive Catalogue in Wood's Index, Suppl. pl. 9. f. 20).

*V. testâ* albâ, posticè rubro-lineatâ; compressâ, oblongâ, quadratâ, posticè truncatâ; lamellis concentricis, anticè crenulatis, distantibus, subplanulatis; posticè porrectis laqueatis productis; costellis radiantibus anticè numerosis, posticè latis angulatim planulatis.

We figure the original specimen in Mr. Hanley's collection. New Holland.

4. *VENERUPIS CARDITOIDES* (pl. clxiv. f. 4), *Lamarck*, An. sans vert. 2nd edit. vi. 164.

*V. compressâ*, latâ, oblongâ, posticè quadratâ; fulvâ, posticè rubro angulatim lineatâ; costellis planulatis radiantibus posticè latoribus, laminis paucis distantibus, posticè productis.

This species bears a close affinity to *V. exotica*, but it is much flatter and broader, with the concentric laminæ less produced and smoother at the back.

New Holland.

5. *VENERUPIS CRENATA* (pl. clxiv. f. 18, 19), *Lamarck*, An. sans vert. 2nd edit. vol. vi. p. 164. Pullastra crenata, *Conch. Nomencl.* Cypricardia serrata, *Reeve*, Conch. Icon. pl. 1. f. 5.

*V. oblongo-subquadratâ*, posticè angulatâ, medio depressâ, omnino pallide fulvâ, aurantio et purpureo picto, intùs posticè fuscâ; costellis numerosis radiantibus, et lamellis valde crenatis irregularibus posticè productionibus decussatâ.

This beautiful squarish-oblong shell, painted with patches of orange and purple, is remarkable for its crenulated laminæ.

New Holland.

6. *VENERUPIS FOLIACEA* (pl. clxiv. f. 8, 9), *Deshayes*, Pro. Zool. Soc. 1853. Brit. Mus. Cat. of Conchifera, p. 193.

"*V. testâ* ovato-subquadratâ, valde inæquilaterali, compressiusculâ, anticè brevissimâ, posticè late truncatâ, margine superiore inferiori parallelo, griseâ, longitudinaliter costellatâ, transversim



et distante lamellosâ; lamellis erectis, tenuibus, latis, in latere postico angulum rectum formantibus; lunulâ elongatâ, angustâ, irregulariter circumdatâ; valvis intus violaceis, in medio flavo-rubrescentibus, marginibus in medio subcrenulatis; sinu pallii trigono, profundo, apice acuto."

Whitish-brown on the outside, rich brownish-red inside, radially costated, with distant, concentric, erect laminæ, which are angularly produced at the posterior angle of the shell.

Mazatlan.

7. *VENERUPIS INSIGNIS* (pl. clxiv. f. 5, 6), *Deshayes*, Pro. Zool. Soc. 1853.

V. testâ irregulari, crassâ, tumidâ, radiatim striatâ, concentricè irregulariter subfoliatâ, intus rubro-violaceâ, ad marginem nigrescente, extus versus marginem aurantia violascente; margine interno lævi.

A finely coloured irregular shell, which it is just possible may be a local variety of *V. crenata*, with the fringes undeveloped.

New Zealand, *H. Evans*, *R.N.* Cuming's collection.

8. *VENERUPIS MITIS* (pl. clxv. f. 22), *Deshayes*, Pro. Zool. Soc. 1853 (ined.).

V. testâ oblongâ subquadratâ, pallidâ, posticè angulatâ, leviter radiatim striatâ; concentricè laminis paululum elevatis cinctâ; margine intus lævi.

Small, oblong-squarish, with regular slightly-raised concentric laminæ and fine radiating striæ.

9. *VENERUPIS DERELICTA* (pl. clxiv. f. 16), *Deshayes*, Pro. Zool. Soc. 1853 (ined.).

V. elongatâ, pallidâ, radiatim striatâ, concentricè laminis crenulatis posticè productioribus cinctâ; latere postico lato, obliquè subquadrato; latere antico subproducto angustato; margine ventrali contracto.

The elongate *Modiola*-like form may possibly be accidental, and in all other respects this species is like *V. Irus*.

It is from the Philippines. *Cuming*.

10. *VENERUPIS OBLONGA* (pl. clxv. f. 21), *Sowerby*, Pro. Zool. Soc. 1834, p. 46. *An Venerirupis subdecussata, Desh.?*

V. "testâ elongo-ellipticâ, pallescente; radiatim costellatâ; lineâ dorsali posticâ rectiusculâ; lamellis concentricis pluribus; posticè lævigatis."



A pale shell, with numerous radiating striæ, and *smooth* concentric ridges, lamellated at the hinder part. The form resembles that of *Tapes decussata*.

Pascomayo, Peru. *Cuming*.

11. *VENERUPIS DIEMENENSIS* (pl. clxiv. f. 11), *Quoy*, Voy. Astr. iii. 535. pl. 84. f. 24, 26.

V. "testâ subtrigonâ, inflatâ, crassâ, transversim obsoletè striatâ, longitudinaliter plicatâ; fusco-lutescente, intus violaceâ."

Inside dark purple, outside pale greyish; radiating ribs rather broad, crossed by undulating rather distant laminæ.

Van Diemen's Land.

12. *VENERUPIS FIMBRIATA* (pl. clxv. f. 23), *Sowerby*, *jun.*

V. testâ ventricosâ, pallidè fulvâ, oblongo-subquadratâ, radiatim planulatim sulcatâ, concentricè laminis distantibus tenuibus posticè fimbriatis productis cinctâ.

Like *V. oblonga*, Sowerby, but the concentric laminæ are thinner and more produced, while the radiating grooves are more distant, and the interspaces flat.

*Hab.* —? Mr. Cuming's collection.

13. *VENERUPIS MIRABILIS* (pl. clxv. f. 24), *Deshayes*, Pro. Zool. Soc. 1853.

V. subquadratâ oblongâ, tumidâ, minutè divaricatim striatâ; concentricè vix laminatâ, pallidâ; intus albâ.

I am half inclined to think this species should have been placed with the *Tapes*. It is remarkable for the zigzag striæ, which cover the whole surface with an equal texture.

Monterey, California; *Mr. Hartweg*. Cuming's collection.

14. *VENERUPIS CORDIERI* (pl. clxiv. f. 2), *Deshayes*, Rev. Zool. Soc. Cuv. 1839, p. 358.

"V. testâ ovato-transversâ, inæquilaterali, inflato-cylindraccâ, transversim eleganter lamellosa; lamellis posticè latis, porrectis, in medio attenuatis, anticè evanescentibus; cardine lato, bidentato; marginibus integris, acutis."

This fine solid shell, with thick, broad, erect laminæ, is from California. We are only able to figure the variety in Mr. Cuming's collection, mentioned by M. Deshayes in the British Museum Catalogue.

15. *VENERUPIS PULCHERRIMA* (pl. clxv. f. 28), *Deshayes*, Pro. Zool. Soc. (ined.)



V. testâ elongatâ, posticè quadratâ, anticè brevi, acutâ, omnino pallidâ, laminis concentricis lævibus erectis, posticè latis subreflexis cinctâ; margine ventrali intùs lævi.

Remarkable for the elongate, cylindrical form, and for the broad, erect, distant laminæ.

Island of Samar, on rocks at low water. *Cuming*.

16. *VENERUPIS NUTTALLII* (pl. clxiv. f. 10), *Conrad* (Saxidomus), Journ. Ac. Nat. Sci. Phil. 1837.

V. testâ oblongâ, tumidâ, crassâ, magnâ, utrinque hiantē, fulvâ, concentricè subundulatum costellatâ, posticè costellis laminæformibus.

Large, thick, irregularly formed, gaping on both sides, with the irregular concentric ridges becoming laminiiform at the back, but more obsolete in the middle.

California.

17. *VENERUPIS INTERSTRIATA* (pl. clxv. f. 26), *Sowerby, jun.*

V. testâ rhomboideâ, albâ, posticè pallidè et minutè rubro-lineatâ, angulo postico elevato; margine dorsali truncato, costellis concentricis tenuibus, subdistantibus; striis intermediis minutissimis.

This species is of an oblong squarish form, with concentric, very thin, and rather distant ribs, and very finely-striated interstices; behind the posterior angle the shell is covered with beautifully reticulated reddish lines. Mr. Hanley possesses the only specimen at present known.

18. *VENERUPIS INTERJECTA* (pl. clxiv. f. 14), *Deshayes*, Brit. Mus. Cat. Conch. 1853.

V. testâ oblongâ subquadratâ pallidâ posticè roseo angulatum lineatâ; anticè brevi, posticè angulatâ; laminis concentricis acutis, subdistantibus; interstriatis.

Of an oblong squarish form, with concentric lamina, and fine striæ in the interstices. If M. Deshayes had seen Mr. Hanley's specimen here figured, he would not have omitted to notice the delicate pink pencillings on the posterior side of the shell.

New Holland.

19. *VENERUPIS OBESA* (pl. clxiv. f. 15), *Deshayes*, Pro. Zool. Soc. 1853 (ined.).

V. testâ tumidâ brevi, subquadratâ, pallidâ, posticè, intùs et ad umbones violaceâ, radiatim striatâ, concentricè prope marginem vix laminatâ.



A small, square, tumid species, which has a purple mark at the umbones, and is purple within and at the posterior angle, radiately striated and obscurely laminated near the margin, which is smooth.

*Hab.* — ? Cuming's collection.

20. *VENERUPIS MONSTROSA* (pl. clxiv. f. 13), *Chemn.* (Venus) vii. 50. pl. 42. f. 445, 446.

V. testâ ovatâ, inæquivalvâ, depressâ, pallidâ; anticè et in medio decussatim striatâ, posticè irregulariter concentricè laminatâ; valvæ dextræ laminis valdè exfoliatis et incrassatis.

Of an oval form, striated longitudinally and concentrically in front, irregularly laminated at the back, where the spreading and thickening of the laminæ in the right valve make it overwrap the left.

Island of Nicobar, Philippines. *Cuming.*

21. *VENERUPIS CUMINGII* (pl. clxiv. f. 12), *Deshayes*, Pro. Zool. Soc. 1853 (ined.).

V. testâ ovatâ, extûs griseâ, intûs castaneâ, inæquivalvâ, subdepressâ, radiatim costellatâ; concentricè laminis concentricis crenulatis cinctâ; valvâ dextrâ laminis ad marginem valdè exfoliatis valvam sinistram superante; margine lævi.

Finely sculptured, with radiating ribs and fringed concentric laminæ; grey without, and of a reddish-brown within; remarkable for the manner in which the left valve is overlapped by the right, as in *V. monstrosa*.

*Hab.* — ? Cuming's collection.

22. *VENERUPIS CHINENSIS* (pl. clxv. f. 29), *Deshayes*, Pro. Zool. Soc.

V. oblongo-quadratâ, depressâ, albâ, posticè angulatâ, lævi, laminis erectis crassiusculis posticè angulatis ad margines exfoliatis cinctâ, margine dorsali recto excavato, margine ventrali intûs lævi.

Of an oblong square depressed form, rather inequivalve, posteriorly angulated; white, with distant, broad, erect, smooth, thick laminæ.

Flo-Flo, Island of Panay, Philippines; on rocks at low water. *Cuming.*

23. *VENERUPIS RUGOSA* (pl. clxv. f. 25), *Deshayes*, Pro. Zool. Soc. 1853.



V. testâ oblongo-subquadrâtâ inflatâ, posticè subangulatâ, pallidâ, intûs albâ, posticè violaceâ, vel castaneâ; costellis concentricis undulatis disruptis posticè sublaminatis cinctâ.

A tumid shell, with undulating laminæ, not unlike the more irregular varieties of *Tapes perforans*.

Swan River, *Dr. Bacon*. Cuming's collection.

24. VENERUPIS PAUPERCUA (pl. clxv. f. 30), *Deshayes*, Pro. Zool. Soc. 1853.

V. testâ parvâ, pallidâ, oblongo-subquadrâtâ, compressâ, concentricè irregulariter subundatim rugiferâ, posticè truncatâ, hiantè; posticè intûs purpureo maculatâ.

Small, very pale, of an oblong square, with irregular, rather undulating ridges. A small patch of purple in the interior.

Mazatlan. *Cuming*.

25. VENERUPIS SILIQUA (pl. clxv. f. 27), *Deshayes*, Pro. Zool. Soc. 1853.

V. testâ elongatâ, subquadrâtâ, pallidâ, posticè angulatâ; leviter radiatim striatâ, concentricè elevatim striatâ, striis posticè in laminas elevatas productas.

New Zealand. Cuming's collection.

26. VENERUPIS PLANICOSTA (pl. clxv. f. 33), *Deshayes*, Pro. Zool. Soc. 1853.

V. testâ *V. obesa* simili, sed compressâ, posticè vix angulatâ.

The sculpture and posterior colouring of this is so much like *V. obesa*, that the distinction must rest on the form of an irregular shell.

Mr. Cuming's collection; locality unknown.

27. VENERUPIS TUMIDA (pl. clxv. f. 34, 35), *Sowerby, jun.*

V. testâ pallidè flavidâ, ventricosâ, concentricè minutè striatâ; costellis tenuibus subdistantibus cinctâ; anticè brevi, angustâ; posticè subangulatâ; margine dorsali recto, depresso, castaneo.

A light, inflated, yellowish, small shell, very finely striated between rather distant, irregular, thin concentric ridges; it is short and narrow in front, wide, rather angular and truncated behind; the dorsal line is depressed, and on one valve has a line of chestnut colour.

Mr. Hanley's collection.

28. VENERUPIS CYLINDRACEA (pl. clxv. f. 36, 37, 38), *Deshayes*. Petricola cylindracea, Rev. Zool. Soc. Cuv. 1839, p. 358.



Mag. de Zool. pl. 20. *P. Californica*, *Conrad*. *P. arcuata*, *Desh.*  
 Guer. Mag. Zool. pl. 19. *P. subglobosa*, *Sowerby*, *Genera*, f. 6.

“Pet. testâ ovato-transversâ, inæquilaterali, globoso-cylindraceâ, aliquando abrupte truncatâ, rufo-griscâ, transversim irregulariter striatâ, intus albâ; cardine bidentato, in alterâ valvâ unidentato; dentibus obliquis.”

This shell is surely much more allied to *Venerupis* than to *Petricola*; it has only transverse sculpture; it is very irregular, and sometimes very much attenuated at the hinder end.

California.

### SPECIES NOT IDENTIFIED.

*V. nucleus*, *Lamk.*, *Anim. s. vert.*

*V. distans*, *Lamk.*, *Anim. s. vert.*

### LIST OF FIGURES IN PLATES CLXIV. AND CLXV.

(The Figure after the Name refers to the number of the Species.)

PLATE CLXIV.	PLATE CLXV.
Fig.	Fig.
1. <i>V. Irus</i> , <i>Linn.</i> 1.	20. <i>V. macrophylla</i> , <i>Des.</i> 2.
2. — <i>Cordieri</i> , <i>Des.</i> 14.	21. — <i>oblonga</i> , <i>Sowb.</i> 10.
3. (Pet. elliptica.)	22. — <i>mitis</i> , <i>Des.</i> 8.
4. <i>V. Carditoides</i> , <i>Lam.</i> 4.	23. — <i>fimbriata</i> , <i>Sowb.</i> 12.
5, 6. — <i>insignis</i> , <i>Des.</i> 7.	24. — <i>mirabilis</i> , <i>Des.</i> 13.
7. — <i>exotica</i> , <i>Han.</i> 3.	25. — <i>rugosa</i> , <i>Des.</i> 23.
8, 9. — <i>foliacea</i> , <i>Des.</i> 6.	26. — <i>interstriata</i> , <i>Sowb.</i> 17.
10. — <i>Nuttallii</i> , <i>Con.</i> 16.	27. — <i>siliqua</i> , <i>Des.</i> 25.
11. — <i>Diemenensis</i> , <i>Quoy</i> , 11.	28. — <i>pulcherrima</i> , <i>Des.</i> 15.
12. — <i>Cumingii</i> , <i>Des.</i> 21.	29. — <i>Chinensis</i> , <i>Des.</i> 22.
13. — <i>monstrosa</i> , <i>Chemn.</i> 20.	30. — <i>paupercula</i> , <i>Des.</i> 24.
14. — <i>interjecta</i> , <i>Des.</i> 18.	31, 32. — <i>Irus</i> , <i>var. ? Linn.</i> 1.
15. — <i>obesa</i> , <i>Des.</i> 19.	33. — <i>planicostata</i> , <i>Des.</i> 26.
16. — <i>derelecta</i> , <i>Des.</i> 9.	34, 35. — <i>tumida</i> , <i>Sowb. jun.</i> 27.
17. (Pet. solidula.)	36-38. — <i>cylindracea</i> , <i>Des.</i> 28.
18, 19. <i>V. crenata</i> , <i>Lam.</i> 5.	



VENERUPIS.



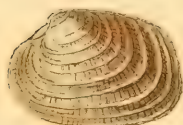




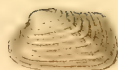




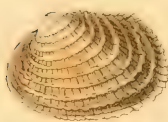
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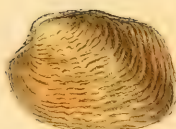
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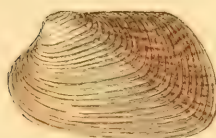
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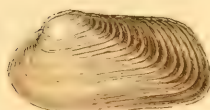
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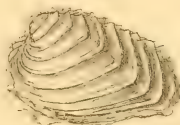
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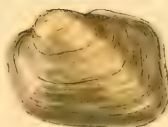
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38















MONOGRAPH OF THE GENUS  
PETRICOLA.

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Fam. Veneridæ.

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*Char. Gen.* Testa æqualvis, inæquilateralis, oblonga, plerumque irregularis; impressionibus muscularibus duabus; pallii impressione sinu elongato; dentibus cardinalibus duobus arcuatis productis, compressis; ligamento externo, brevi.

It is not easy, with any degree of consistency, to distinguish the species of *Petricola* from those of *Venerupis*. As a rule, the *Petricolæ* incline to taper off posteriorly, while they are round and full in front; generally their radiating ribs are more conspicuous than the concentric striæ or laminæ; whereas in *Venerupis* the laminæ are most prominent, particularly at the back of the shell. On the whole the species of the two genera, as here placed, catch the eye as forming two tolerably distinct groups.

The most doubtful species are *P. elliptica* and *P. solida*, which I have inadvertently admitted in the plates of both genera. In general appearance they incline most to the genus *Petricola*.

1. PETRICOLA PHOLADIFORMIS (pl. clxvi. f. 1), *Lamarck*, An. s. vert. v. 505, no. 11.

Pet. testâ oblongâ candidâ cylindraceâ, anticè brevissimâ, costis validis subquadratis, crebrè serratis, distantibus radiatâ, posticè attenuatâ, costis obliquis parvis, distantibus, versus extremitatem subobsoletis.

Oblong, cylindrical, very like a *Pholas*, with very thick, distinct, serrated ribs in front, which become smaller towards the hinder part of the shell, where they sometimes become almost obliterated.

North America.

2. PETRICOLA SERRATA (pl. clxvi. f. 11), *Deshayes*, Pro. Zool. Soc. 1853.



Pet. testâ *P. pholadiformi* simili, sed costellis anticis vix elevatis, interruptis, acutè serratis.

The front ribs are here reduced into radiating rows of sharp points; still I doubt greatly whether this may not be a mere varietal distinction.

New Zealand. Mr. Cuming's collection.

3. PETRICOLA GRACILIS (pl. clxvi. f. 12), *Deshayes*, Pro. Zool. Soc. 1853.

Pet. testâ *P. pholadiformi* simili sed longè graciliore, costellis anticis vix elevatis, acutè serratis, posticè attenuatâ, striis subobsoletis.

Sculptured like *P. serrata*, but more finely; a much lighter and elongated shell than either it or *P. pholadiformis*, still very doubtful.

Hab. — ? Cuming's collection.

4. PETRICOLA CULTELLUS (pl. clxvi. f. 2, 5), *Deshayes*, Pro. Zool. Soc. 1853.

Pet. testâ elongato-angustâ, transversâ pholadiformi lateraliter compressiusculâ inferno convexo-arcuato; anticè brevi posticèque obtusâ, hiantè albo squalidè rufescente longitudinaliter squamulis fornicatis exasperatis; striis in medio posticèque tenuibus, undulosis striis incrementi irregularibus interruptis; umbonibus tumidulis approximatis lævigatis, valvis intùs candidissimis; sinu pallii elongato, angusto, apice obtuso.

The form is similar to that of *P. pholadiformis*; it has rather sharp serrated ridges in front; it is rather depressed, of a very pale fawn-colour, and has the ventral margin rather rounded.

Ceylon. Mr. Cuming's collection.

5. PETRICOLA DACTYLUS (pl. clxvi. f. 4), *Sowerby*, Gen. of Shells, f. 3.

Pet. testâ inflatâ, ovali pallidè grisea, intùs albâ, anticè brevi, subacuminatâ planulatim costellatâ, medio tumidâ, costellis latioribus, indè subcontractâ, costellis numerosis, cancellatis, posticè attenuatâ subtruncatâ concentricè striatâ, striis radiantibus obsoletis.

A very tumid pholadiform shell, differing from *P. nivea* in being much stronger, and having the short front side almost rostrated, the middle tumid, and the back contracted. The sculpture is in flattened ridges to about the middle, then sharper and more numerous, then lost at the back.

South America.



6. PETRICOLA DENTICULATA (pl. clxvi. f. 6, 7), *Sowerby*, Pro. Zool. Soc. 1834, p. 47. *P. ventricosa*, *Deshayes*, B. M.

"Pet. testâ oblongâ, pholadiformi, extûs pallescente, intus ad extremitates fusco-nigricante tinctâ; anticè subrostratâ, posticè rotundatâ; lineâ dorsali rectiusculâ, ventrali subprominulâ, omnino radiatim sulcatâ et concentricè striatâ, striis anticè sublamellosis denticulatis."

Much narrower than *P. dactylus*, more rostrated in front, with the radiating ribs continued quite to the back. Inside brown at both ends.

Payti, Peru. *Cuming*.

7. PETRICOLA NIVEA (pl. clxvi. f. 13, 14), *Chemn.*, "Mytilus niveus," Conch. viii. 154. pl. 82. f. 734. *P. rugosa*, *Sowerby*, Pro. Zool. Soc. 1834. p. 47. *P. fornicata*, *Say*, Journ. Acad. Nat. Sci. Phil. ii. 314? *P. tenuis*, *Sowerby*, Pro. Zool. Soc. 1834, p. 47. *P. gibba*, *Middend.*?

Pet. testâ oblongâ, pholadiformi, albâ, ventricosâ, radiatim costellatâ, costellis serratis anticè paulò, posticè multò fortioribus margine ventrali anticè rotundato posticè subcontracto, cardine dentibus nonnunquam subobsoletis.

The serrated ribs of this cylindrical species are strongest at the hinder part of the shell, and thinnest in the centre.

Nicobar, *Chemnitz*. Chili and Peru, *Cuming*.

8. PETRICOLA CONCINNA (pl. clxvi. f. 3), *Sowerby*, Pro. Zool. Soc. 1834, p. 46.

Pet. testâ oblongâ, pholadiformi, albicante; concentricè costellatâ; anticè rotundatâ, radiatim sulcatâ dorso declivi, alterius valvæ lamellâ lævigatâ; posticè acuminatiusculâ, costellis concentricis lamellosis confertis.

Like *P. pholadiformis* in shape, with radiating serrated ribs in front, and regular concentric laminæ, commencing in the middle and widening at the back.

Monte Christi; found in hard clay at low water. Mr. Cuming's collection.

9. PETRICOLA ELEGANS (pl. clxvi. f. 8), *Deshayes* (*Venerupis*), Pro. Zool. Soc. 1853.

V. testâ elongatâ ovali inflatâ, pallidâ, radiatim leviter striatâ, anticè subacutâ; posticè subtruncatâ; laminis concentricis anticè et in medio, subduplicatis posticè tenuibus productioribus; lunulâ tumidâ; margine dorsali, recti, impressâ.



This date-shaped shell is lightly striated between the laminæ, which are duplicate excepting at the back, where they are broad, thin, and single.

*Hab.* —? Cuming's collection.

10. PETRICOLA ELLIPTICA (pl. clxvi. f. 10), *Sowerby*, Pro. Zool. Soc. 1834, p. 46.

"V. testâ ovato-ellipticâ, rufescente-albidâ; radiatim costatâ, posticè lævi; lamellis concentricis sparsis; lunulâ anticâ distinctâ."

With something of the general form and radiating ridges of *Petricola*, it has the concentric ridges of the *Venerupis*; between the ribs it is smooth behind.

Found in hard mud at low water; Payti, Peru. *Cuming*.

11. PETRICOLA SOLIDA (pl. clxvi. f. 9), *Sowerby*, Pro. Zool. Soc. 1834, p. 46.

V. "testâ subgloboso-ellipticâ, pallescente umbonibus extremitatibusque ambabus fusco-violaceis; radiatim costatâ, posticè lævigatâ; lineis incrementi nonnunquam sublamellosis posticè magis eminentibus."

Although this shell is more solid, ventricose, and rounded than *P. elliptica*, I more than suspect it is but a variety of that species.

Found in hard clay and stones at low water at Lambeyeque, in Peru. *Cuming*.

12. PETRICOLA LITHOPHAGA (pl. clxvi. f. 18, 19), *Retzius* (Venus), Trans. Turin. P. striata, *Lam.*, An. s. vert. ed. 2. vol. vi. p. 158. Mya decussata, *Turt.* P. costellata, *Lam.* ib. P. roccellaria, *Lam.* ib. P. ruperella, *Lam.* ib. Venerupis petricola, *Blainv.* Sphæria decussata, *Turt.*

Pet. testâ irregulari, inæquilatêrâ, anticè brevi, rotundatâ, posticè apertâ obliquè attenuatâ, striis radiantibus anticè tenuibus posticè validioribus.

The varieties included in the above synonyms differ from each other in the lightness or solidity of the shell, in the strength of the ribs, and in shape; but they are all short in front, and obliquely taper off at the base, where the radiating striæ are strengthened. The following five species appear to differ more essentially.

Britain.

13. PETRICOLA TYPICA (pl. clxvi. f. 21), *Jonas*, Mollusc. Beitr. p. 2. pl. 7. f. 3.



Pet. testâ *P. robusta* simili, sed tenuiore, striis radiatis gradatim crescentibus; omnino albâ.

Almost as globose as *P. robusta*, but without any colour, and lighter, with the ribs more gradually increasing in size and distance towards the back.

Island of St. Thomas.

14. PETRICOLA ROBUSTA (pl. clxvi. f. 16, 17), *Sowerby*, Pro. Zool. Soc. 1834. f. 4.

"Pet. testâ rotundato-subtrigonâ, gibbosâ, solidiusculâ; extus rufescente-fuscâ, intus nigricante; radiatim costatâ, costis anticis tenuioribus confertioribus, posticis altioribus; interstitiis omnibus exilissimè decussatim striatis; latere antico rotundato, postico subacuminato; margine dorsali declivi."

Of a dull orange tint, with purple at the apices and blackish inside, rather thick, very globose in front, tapering behind, where the valves are unequal, the right valve slightly overwrapping. The radiating striæ are distant, numerous, and close in front, but towards the back become separated, strong, acute; the hinder ones of all are a little smaller, serrated, and their ends form a denticulated edge.

In rocks, six to eleven fathoms, at Panama. *Cuming*.

15. PETRICOLA BIPARTITA (pl. clxvi. f. 20), *Deshayes*, Pro. Zool. Soc. 1853.

"Pet. testâ elongatâ subtrigonâ, anticè turgidâ, obtusâ, brevi, posticè attenuatâ, subangulatâ, cuneiformi, intus extusque candidissimâ, longitudinaliter striatâ; striis in latere antico multo tenuioribus divisis, divaricatis, irregulariter inter se conjunctis, in medio regularibus, sensim in latere postico crassioribus; valvis tenuibus, dentibus cardinalibus inæqualissimis, uno in utrâque valvâ magno robusto; sinu pallii trigono, basi lato, in medio valvarum posito."

Much resembling *P. lithophaga*, but with the hinder ribs more distinct and serrated, and the front ribs divided and diverging. It is also less oblique than the British species.

Island of Samar, Philippines. *Cuming*.

16. PETRICOLA CHINENSIS (pl. clxvi. f. 15), *Deshayes*, Pro. Zool. Soc. 1853.

"Pet. testâ ovato-subtrigonâ, anticè obtusâ, turgidiore, brevi, lævigatâ, posticè attenuatâ, in medio et posticè longitudinaliter sulcatâ, sulcis undulatis convexis interstitiis latioribus, umbonibus minimis, oppositis, separatis; ligamento magno crasso; cardinali-



bus dentibus inæqualibus arcuatis; sinu pallii magno, lato, basi obliquissimo."

Much less oblique than *P. lithophaga*, more square in front, with the umboes flattened in the middle, free from ribs in front, while in the middle the riblets have broad interstices, and at the back are slightly crenulated.

Chinese Seas. *Cuming*.

17. PETRICOLA SEMILAMELLATA (pl. clxvi. f. 23), *Lamarck*, An. s. vert. v. 503. no. 3.

Pet. testâ albâ, tenui, obliquè subglobosâ, posticè paululum attenuatâ, sulcis concentricis minutis irregularibus, posticè sublamellosis.

A light, obliquely globose, small shell, shaped something like *P. lithophaga*, but with no longitudinal ridges, and very fine concentric ridges, which are lamellated at the back.

Rochelle.

18. PETRICOLA BICOLOR (pl. clxvi. f. 22), *Sowerby, jun.*

Pet. testâ ovatâ, tenui, radiatim minutè striatâ utrinque hiantè, anticè rotundatâ brevi posticè obliquè subattenuatâ maculâ fuscâ trigonâ pallidâ.

An inflated shell, belonging to the same group with *P. lithophaga*, but equally and finely striated, gaping at both ends, with a triangular patch of pale brown at the back.

Mr. Hanley's collection.

19. PETRICOLA DIVARICATA (pl. clxvi. f. 24, 25), *Chemnitz*, Conch. pl. 172. f. 1666, 1667. *Narinio divaricata*, *Gray*.

Pet. testâ solidâ, obliquè subquadratâ, albâ, intus lutescente, omnino divaricatim striatâ, antice brevissimâ, umbonibus prominentibus terminalibus, posticè truncatâ margine foliatâ incrassatâ.

Solid, rather obliquely squarish, white, yellowish within, all over striated in sharp angles; front side short, with the apex quite terminal; hinder side oblong, truncated, with the edge thickened and foliated.

Deshayes gives as localities Indian Ocean and New Holland. Mr. Cuming's specimen is marked "Red Sea."

20. PETRICOLA LAPICIDA (pl. clxvi. f. 26), *Chemnitz*, Conch. pl. 172. f. 1664, 1665. *Narinio costata*, *Gray*.

Pet. testâ *P. divaricata* simili, sed striis divaricatis evanidis, posticè costellis validis subdistantibus radiatâ.



The strong posterior radiating ribs which distinguish this species from the preceding do not commence their formation at an early period in the growth of the shell. The general surface appears smooth to the eye, but, examined minutely, presents the same character of zigzag striation, but much more faint and obsolete.

Australia.

#### SPECIES NOT IDENTIFIED.

*P. amygdalina*, *Sowerby*, *Pro. Zool. Soc.* 1834. p. 47.

*P. bidentata*, *Gray*, *Annals*, p. 25.

*P. costellata*, *Lamarck*, *Anim. s. vert.*

*P. discors*, *Sowerby*, *Pro. Zool. Soc.* 1834. p. 46.

*P. flabagella*, *Lamarck*, *Anim. s. vert.*

#### LIST OF FIGURES IN PLATE CLXVI.

(The figure after the Name refers to the number of the Species.)

Fig.	Fig.
1. <i>P. Pholadiformis</i> , <i>Lam.</i> 1.	13, 14. <i>P. nivea</i> , <i>Chem.</i> 7.
2. — <i>cultellus</i> , <i>Des.</i> 4.	15. — <i>chinensis</i> , <i>Des.</i> 16.
3. — <i>concinna</i> , <i>Sowb.</i> 3.	16, 17. — <i>robusta</i> , <i>Sowb.</i> 14.
4. — <i>Dactylus</i> , <i>Sowb.</i> 5.	18, 19. — <i>lithophaga</i> , <i>Retz.</i> 12.
5. — <i>cultellus</i> , <i>Des.</i> 4.	20. — <i>bipartita</i> , <i>Des.</i> 15.
6, 7. — <i>denticulata</i> , <i>Sowb.</i> 6.	21. — <i>typica</i> , <i>Jonas</i> , 13.
8. — <i>elegans</i> , <i>Des.</i> 9.	22. — <i>bicolor</i> , <i>Sowb.</i> 18.
9. — <i>solida</i> , <i>Sowb.</i> 11.	23. — <i>semilamellata</i> , <i>Lam.</i> 17.
10. — <i>elliptica</i> , <i>Sowb.</i> 10.	24, 25. — <i>divaricata</i> , <i>Chem.</i> 19.
11. — <i>serrata</i> , <i>Des.</i> 2.	26. — <i>lapicida</i> , <i>Chem.</i> 20.
12. — <i>gracilis</i> , <i>Des.</i> 3.	



## MONOGRAPH OF THE GENUS

## A S T A R T E.

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*Fam. Veneridæ.*


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*Char. Gen.* Testa æquivalvis, suborbicularis, solida, clausa, lævis seu concentricè costata, epidermide induta; impressionibus muscularibus ovatis distinctis, impressione pallii simplici; cardine dentibus duobus, validis, divergentibus, et in alterâ valvâ uno, cum vix secundo; ligamento elongato externo.

This genus, the *Crassina* of Lamarck, is distinguished by the almost constant presence of a dark chestnut-brown epidermis on an otherwise colourless surface, which is generally corroded at the apices. The form is flattish, rounded, and more or less inæquilateral; the impressions are deep, and the pallial scar simple; the inner surface is thickened, so as to produce great solidity in advanced specimens; the external ligament is long and tumid; the teeth are diverging and strong, two in one valve and one in the other, with sometimes a rudimentary second; the inner ventral margin is sometimes crenated, and sometimes (even in the same species?) smooth. In all the specimens of all the species I have examined, excepting perhaps the dubious *A. triangularis*, there is a similarly excavated, elongated, and smooth character in the dorsal area and lunule; muscular impressions deep, with the pallial line simple.

1. ASTARTE SULCATA (pl. clxvii. f. 1, 2, 3), *Da Costa*. *Pectunculus sulcatus*, *Brit. Conch.* p. 192. *Crassina Danmoniensis*, *Lamarck*, *An. s. vert. ed. 2. vol. vi. p. 257*. *Venus sulcata*, *Turt.* *Crassina Scotica*, *Turt.*, *Dithyra* *Brit. p. 130. pl. 11. f. 3, 4*. *Crassina sulcata*, *Turt.*, *Dithyra* *Brit. p. 131. pl. 11. f. 1, 2*. *Astarte Danmoniensis*, *Sowerby*, *Genera of Shells, f. 1, 2, 3*. *Venus crassatella*, *De Blainville*. *Crassina semisulcata*.



Ast. testâ subquadratâ, compressâ, solidâ, anticè brevi, posticè subangulatâ, subtruncatâ; sulcis rotundatis, distinctis, regularibus; margine crasso, intùs plerumque crenulato.

Of a squarish form, with regular ribs of medium size and number. The margin is generally crenuled, but the variety named *Crassina Scotica* is not so. The name *A. Danmoniensis* is lost, on account of the priority of the specific name *sulcata*. In this and in one or two following species the ribs are frequently nearly obsolete towards the ventral margins and back.

2. ASTARTE ELLIPTICA (pl. clxvii. f. 4), *Brown*, Illus. Conch. p. 96. pl. 38. f. 3; *Hanley*, Recent Shells, Suppl. pl. 14. f. 36; *Forbes and Hanley*, B. Moll. pl. 30. f. 8. *Astarte semisulcata*, *Möller* (not *Leach*). *Crassina sulcata*, *Nilsson*, Nov. Act. Holm. 1822. p. 187. pl. 2. f. 1, 2. *Crassina ovata*, *Brown*, Edin. Jour. Nat. and Geog. Sci. pl. 1. f. 8, 9.

Ast. testâ oblongâ, subquadratâ, compressâ, posticè truncatâ, costellis concentricis posticè et versus margines plerumque obsolete; margine intùs lævi, impressionibus muscularibus magnis.

Like the *Scotica* variety of *sulcata*, it has a smooth inner margin; like *sulcata* as I understand it, it has the truncated form at the posterior side; like all the species of the group, it is sometimes destitute of ribs on the back and ventral margins. It is longer than *sulcata*, and (in Mr. Hanley's specimen) has much larger muscular impressions.

North Europe.

3. ASTARTE INTERMEDIA (pl. clxvii. f. 11), *Sowerby, jun.*

Ast. testâ ovali, compressâ, liratâ, utrinque acutiusculâ, liris subfrequentibus, nonnunquam prope marginis evanidis; margine intùs lævi.

My experience in the variations of the genus is hardly sufficient to enable me to say whether the distinction now proposed will stand, but it seems to me more important than the one between *sulcata* and *elliptica*. *A. intermedia* differs from both these in having the ends rather sharp than rounded or truncated. It differs from the American species *undata* in having a much larger number of ribs.

North Europe.

4. ASTARTE UNDATA (pl. clxvii. f. 12), *Gould*, Invert. Mass. p. 80. *A. sulcata*, *Auct. Amer.* *A. latisulca*, *Hanley*, note, p. 87. *A. Mortoni*, *Adams*, U. S. (ubi?).



Ast. testâ solidâ, ovali, costellis magnis subgradiformibus, margine dorsali elongato, declivi; margine ventrali intûs (semper?) crenulato.

The ribs are large and step-like, and the hinder dorsal margin slopes in a long curve from the apex to the ventral corner. In other respects like *sulcata*. In Mr. Cuming's collection is a specimen named *Mortoni* (not fully developed?), with the ventral margin smooth; but it has so exactly the character of the *A. undata* (which is crenulated) that it must be considered another case of *Scotica* versus *sulcata*.

North America.

5. ASTARTE CREBRICOSTATA (pl. clxvii. f. 10), *Forbes*, Ann. Nat. Hist. vol. xix. p. 98. pl. 9. f. 4.

Ast. testâ compressâ, posticè subtruncatâ, suboblongâ, valdè inæquilaterâ, costellis concentricis numerosissimis posticè subevanidis, margine intûs crenulato; impressione pallii propè marginem positâ.

The state of the hitherto found specimens is strongly suggestive of pleistocene beds; but no such beds have been found near the place where *A. crebricostata* was first found. Only single valves (we figure Mr. Hanley's specimen) have been dredged in deep water at Zetland and Skye.

North Britain.

6. ASTARTE SUBÆQUILATERA (pl. clxvii. f. 13), *Sowerby, jun.*

Ast. testâ compressâ, subovali, anticè breviusculâ, declivi, posticè subtruncatâ, costellis numerosis, distinctis; margine crenato.

It is not unlike *A. crebricostata*, but much more equilateral. The ribs are not quite so numerous, and the pallial impression is not near the ventral margin.

Mr. Cuming's collection. Newfoundland.

7. ASTARTE ARCTICA (pl. clxvii. f. 17, 18, 20), *Gray*. *Crasina* Arctica, *Gray*, App. Captain Parry's Voyage. *V. borealis*, *Chemn.*, *Nilsson* (not Linn.). *Astarte cyprinoides*, *Duval*, Rev. Zool.; *Hanley*, Recent Shells, Suppl. pl. 14. f. 40. *C. corrugata*, *Brown*. *A. Japonica*, *Jay*?

Ast. testâ plerumque ovali, subdepressâ, inæquilaterâ, versus apicem et ad medium concentricè irregulariter et obsoletè corrugatâ; margine tenui, intûs lævi.

After studying for some time a number of specimens, young and old, in various conditions and variously named as above, some



thick and tumid, some thinner, flatter, and more elliptical, I came to this conclusion, that either each specimen must be a species, or that they must all be one. The general smoothness of surface towards the margin, the irregular obsolete corrugations near the beaks, and the thin margin, and its smooth inside margin being alike in all, decided me to adopt the latter alternative, as others have done.

Northern Seas.

8. *ASTARTE SEMISULCATA* (pl. clxvii. f. 16), *Leach*. *Crassina semisulcata*, Ann. Phil. xiv. f. 204.

Ast. testâ compressâ, lævi, elongatâ, prope umbones leviter concentricè sulcatâ; margine interno lævi.

If this shell, which I have from Mr. Hanley, be the true *C. semisulcata* of Leach, it will occupy the same position with regard to *A. Arctica* as *A. elliptica* does to *A. sulcata*, its chief distinction being its great elongation of form.

North Seas.

9. *ASTARTE LACTEA* (pl. clxvii. f. 21, 22, 23), *Broderip*, Zool. Journ. iv. p. 365.

Ast. "testâ obovatâ, compressâ, anticè breviorè; margine dorsali postico depresso; intùs lacteâ, marginibus integerrimis."

Like *A. Arctica*, but with strong and regular costellæ near the apices. The epidermis is often, when fully developed, very thick and black, and the shell very white within; margins smooth. The species is subject to the same variation as the last.

North Europe.

10. *ASTARTE OBLONGA* (pl. clxvii. f. 19), *Sowerby, jun.*

Ast. testâ inflatâ, ovali, tenui, anticè et ad medium concentricè minutè lirâtâ, posticè longiorè, tenuistriatâ; cardine angustâ; margine ventrali crenato.

An oval, rather light, inflated shell, with numerous small concentric ridges commencing on the anterior side, and dying out a little past the middle, the hinder side being nearly smooth or slightly striated. The lunule and dorsal area are impressed as usual, and of a distinct chestnut-colour compared to the rest of the epidermis, which is light olive. Inside white; hinge thin, margin arcuated.

*Hab.* —? Mr. Cuming's collection.

11. *ASTARTE BANKSI* (pl. clxvii. f. 8), *Leach*, Ross Voy.



App.; *Gray*, Zool. Beech. pl. 44. f. 10. *Ast. pulchella*, *Jonas*, Phil. Abbild. Ast. tab. 1. f. 12?

*Ast. testâ inflatâ, cordato-rotundatâ, altâ, creberrimè liratâ; margine intûs lævi.*

A small cordate species, with very numerous regular ribs, like *A. compressa*, but more inflated, more cordate, the ribs more distinct and regular, and the lunule and dorsal area more defined and excavated.

Greenland.

12. *ASTARTE COMPRESSA* (pl. clxvii. f. 6, 7), *Montagu*. *Venus compressa*, Test. Brit. Suppl. p. 43. pl. 26. f. 1. *V. Montagui*, *Dillwyn*, Recent Shells. *Cyprina compressa*, *Turt.* *Astarte striata*, *Gray*, App. Beech. Voy. pl. 44. f. 9. *A. multicosta*, *Macgillivray*, Ph. Abbild. Ast. tab. 1. f. 8?

*Ast. testâ subtrigonâ, compressâ, plerumque altiore, concentricè minutè liratâ, liris nonnunquam medio et ad marginem ventralem obsoletis; margine intûs lævi; epidermide tenui, olivacea.*

Rather trigonal, sometimes even higher than long, with the concentric riblets very minute, and in some cases obsolete.

Great Britain and Norway.

13. *ASTARTE TRIANGULARIS* (pl. clxvii. f. 9), *Montagu*. *Mactra triangularis*, Test. Brit. p. 99. pl. 3. f. 5. *Mactra minutissima*, *Mont.* Test. Suppl. *Goodallia triangularis*, *Turt.* *Mactrina triangularis*, *Brown*. *A. triquetra*, —?

*Ast. testâ parvâ, trigonâ, inflatâ, altâ, politâ; margine crenulato.*

More inflated, smaller, and higher from beak to ventral margin, than *A. quadrans*, with the margin finely crenulated.

North Britain.

14. *ASTARTE QUADRANS* (pl. clxvii. f. 5), *Gould*, *Invert. Mass.* p. 81. f. 48.

*Ast. testâ trigonâ, compressâ, subæquilatêrâ, tenui, lævigatâ, seu tenuissimè striatâ; margine intûs lævi.*

A small trigonal flattish shell, nearly equilateral and nearly smooth.

North America.

15. *ASTARTE CASTANEA* (pl. clxvii. f. 14, 15), *Say*, *Amer. Conch.* pl. 1 (1830). *An Ast. crassidens?* *Broderip and Sowerby*, *Zool. Journ.* (1828, 1829).



Ast. testâ suborbiculari, cordatâ, obsoletissimè radiatim sulcatâ, lævi, vel sulcis concentricis obsoletis; cardine dente centrali magno, subcrenato; margine ventrali crenato.

Smooth, or very obscurely grooved concentrically, and still more obscurely radiated, orbicular, heart-shaped, with beaks prominent; central hinge-tooth in one valve, large and ragged, inner margin crenated.

Arctic Seas.

16. *ASTARTE FUSCA* (pl. clxvii. f. 24), *Poli.* *Tellina fusca*, Test. tab. 1. pl. 15. f. 32, 33. *A. incrassata*, *Brocchi*, *Deshayes*, ed. Lam. vi. p. 257.

Ast. testâ tumidâ, crassâ, fuscâ, obscurè rubro radiatâ, orbiculari-cordatâ, versus umbones rotundatim lirâtâ, posticè subtruncatâ, intus pallidè fuscâ, margine crenato.

Tumid, thick, of a dark brown, with sometimes obscure radiations outside, paler (but still brown) within; the concentric ridges are smooth, round, without interstitial spaces, but generally obsolete from the middle to the ventral margin.

Mediterranean.

#### SPECIES NOT IDENTIFIED.

*A. bilunata*, *Conrad*, Jay, Cat.

*A. difficilis*, *Jay*, Cat. Greenland.

*A. lævis*, *Jay*, Cat. Greenland.

*A. Montagui*, *Gray*, Turt.

*A. Portlandica*, *Mighels*, Pro. Bost. Soc. Nat. Hist.

#### LIST OF FIGURES IN PLATE CLXVII.

(The Figure after the Name refers to the number of the Species.)

Fig.	Fig.
1, 2, 3. <i>A. sulcata</i> , <i>Cost.</i> 1.	13. <i>A. subæquilatera</i> , <i>Swb. j.</i> 6.
4. — elliptica, <i>Brod.</i> 2.	14, 15. — castanea, <i>Say</i> , 15.
5. — quadrans, <i>Gould.</i> 14.	16. — semisulcata, <i>Leach</i> , 8.
6, 7. — compressa, <i>Mont.</i> 12.	17, 18. — <i>Arctica</i> , <i>Gray</i> , 7.
8. — <i>Banksii</i> , <i>Leach</i> , 11.	19. — oblonga, <i>Swb. jun.</i> 10.
9. — triangularis, <i>Mont.</i> 13.	20. — <i>Arctica</i> , <i>Gray</i> , 7.
10. — crebricostata, <i>Forbes</i> , 5.	21–23. — lactea, <i>Brod.</i> 9.
11. — intermedia, <i>Swb. jun.</i> 3.	24. — fusca, <i>Poli</i> , 16.
12. — undata, <i>Gould</i> , 4.	



## MONOGRAPH OF THE GENUS

## CYPRINA.

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*Fam. Veneridæ.*


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*Chr. Gen.* Molluscum acephale; testâ æquivalvi, solidâ, sub-orbiculari, inæquilaterali, epidermide indutâ; cardine dentibus tribus divergentibus centralibus et uno antico sublaterali in utrâque valvâ; ligamento externo magno; impressionibus muscularibus reniformibus; pallio impressione integro.

Like *Circe*, *Astarte*, and some species of *Venus* proper, *Cyprina* has the impression of the mantle entire. It has the hinge of *Cytheræa*, a large protuberant ligament, and a thick coating of epidermis.

1. CYPRINA ISLANDICA (pl. clxviii. f. 1, 2, 3), *Linn. Syst. Nat.* ed. 12. p. 1131 (Venus). *Cyprina Islandica*, *Lamarck*. *Cyprina vulgaris*, *Sowerby*, *Brown*, *Reeve*, etc.

Cyp. testâ crassâ, ventricosâ, ovato-suborbiculari, concentricè minutè striatâ, epidermide fusco indutâ; intùs albâ, margine integro.

Thick, ventricose, particularly at the hinder part, of an orbicular form, slightly inclining to oval, wider behind than in front. The outside is covered with an epidermis, which, when young, is of a light yellowish-brown, and becomes darker and darker with age, till it becomes almost black. The inside is white and the border quite smooth. Although found in gravelly sand or mud in all parts of the British coasts, *Cyprina Islandica* is characteristically a Northern mollusc.

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## EMENDATIONS TO THE MONOGRAPHS OF VENERIDÆ.

The Editor is indebted for nearly all the following observations to his friends M. Deshayes and Mr. Hanley, who also kindly favoured him with some others, which he is not quite prepared to adopt. M. Deshayes has described some new species in the 'Zoological Proceedings' and in the 'British Museum Catalogue;' but the preparations for the present number were too far advanced to admit of their insertion.

### CYTHERÆA.

*C. innocens*, pl. clxiii. f. 210.

*C. disrupta*, pl. clxiii. f. 208, 209.

*C. multistriata*, pl. cxxxvi. f. 177.

I have little doubt but these are varieties of the same species, which has been previously described by Mr. Hanley as *C. Guneri*.

*C. spathulata*, comes from China.

*C. Sinensis* should be numbered in Plate cxxxi. 80 and 81, instead of 79, 80. The right-hand top corner figure should be 81.

*C. Tellinoidea* (76) was previously described by Mr. Hanley as *C. cor*.

*C. Kingii*, } M. Deshayes is decidedly of opinion that these  
*C. Lamarckii* } species are identical.

*C. corbicula* is the *Mactroides* of Born.

*C. Mactroides* is now named *Dillwinii* by Deshayes.

*C. nitidula* (14) is not the true species of Lamarck, but M. Deshayes has named it *C. Delessertii*.

*C. dubia* (2) is considered by M. Deshayes to be a variety of *C. crassatelloides*.

*C. elegans* (113) was previously named *C. pulchra* by M. Deshayes.

*C. elliptica* (114) should be included in *C. calypiga*, no. 112.

*C. striata* (87) is *tumens*, Gmel.

With regard to the difficult identification of *C. lusoria*, *C. impudica*, *C. meretrix*, *C. formosa*, and several other species, M.



Deshayes has not arrived at the same conclusions as Mr. Hanley and myself.

*C. Planatella*, *C. immaculata*, and *C. elliptica* of Lamarck, should have been added to the list of species not identified.

The following species are new, and are figured in Plate CLXVIII.

- Sp. 121. *C. grata* (pl. clxviii. f. 218), *Deshayes*. Mr. Cuming's collection.
- Sp. 122. *C. planisulcata* (pl. clxviii. f. 216), *Sowerby, jun.*; like *C. lyra*, but with the ribs flatter and larger in proportion to the size of the shell, which is also less oblique. Mr. Hanley's collection.
- Sp. 123. *C. albo-dorsata* (pl. clxviii. f. 212, 213), *Sowerby, jun.*; resembling *C. spathulata* and *C. Sinensis*, but more pointed and less broad at the hinder part. Mr. Hanley's collection.
- Sp. 124. *C. lineolata* (pl. clxviii. f. 214, 215), *Sowerby, jun.*; like *C. Venetiana*, but having a remarkable livid spot, like the commencement of a ray on the anterior side of the apex. The lunule and dorsal area are prettily marked with red cross lines. Mr. Hanley's collection.
- Sp. 125. *C. simplex* (pl. clxviii. f. 217), *Sowerby, jun.*

#### CIRCE.

*Circe plebeja* was previously named *C. sulcata*, Gray.

#### TAPES.

- T. fluctuosa*, sp. 74 (Suppl.). Our shell must be differently named, as the true *T. fluctuosa* of Gould is the shell which we now figure (pl. clxviii. f. 167).
- T. rariflamma*, sp. 1, is *dura*, Gmel.
- T. papilionacea*, sp. 2, is *V. rotunda*, Gmel.
- T. rimosa*, sp. 11, is *U. undulata*, Born.

The following new species are figured in Plate CLXVIII.

- Sp. 76. *T. anatina* (pl. clxviii. f. 165, 166), *Sowerby, jun.*; wrongly named *virginea* by Philippi. Mr. Hanley's collection.
- Sp. 77. *T. inæqualis* (pl. clxviii. f. 164), *Sowerby, jun.*; so named from the unequal strength of its decussated striæ. Mr. Hanley's collection.



## VENUS.

- V. rostrata*, sp. 42, is from Florida.  
*V. histrionica*, sp. 32; a more characteristic form is figured in pl. clxviii. f. 229, from Mr. Hanley's collection.  
*V. Kochii*, sp. 105, is *V. paupercula* of Chemnitz.  
*V. Africana*, sp. 106, is *floridella* of Gray.  
*V. flexuosa*, sp. 39, is properly *V. impressa*.  
*V. punctifera*, sp. 40, is the true *V. flexuosa*, of which a more characteristic variety is figured in pl. clxviii. f. 230.  
*V. magnifica*, sp. 2, was first so named by Mr. Hanley.  
*V. spurca*, sp. 49, was previously named *V. mesodesma*.  
*V. crebrisulca*, sp. 75, is not the shell so named by Lamarck; M. Deshayes has named it *V. Jukesii*.

The following are new :—

- Sp. 110. *V. parva* (pl. clxviii. f. 227, 228), *Sowerby, jun.*, like *V. pygmæa*, but flatter and more finely decussated; in Mr. Hanley's collection; from Florida.  
 Sp. 111. *V. sphaerisulca* (pl. clxviii. f. 231), *Deshayes*.

## LIST OF FIGURES IN PLATE CLXVIII.

(The Figure after each Name refers to the number of the Species.)

## CYPRINA AND SUPPLEMENTARY VENERIDÆ.

- Fig. 1, 2, 3. *Cyp. Islandica*, *Linn.*  
 212, 213. *Cyth. albodorsata*, *Sowb. jun.* 123.  
 214, 215. — *lineolata*, *Sowb. jun.* 124.  
 216. — *grata*, *Desh.* 121.  
 217. — *simplex*, *Sowb. jun.* 125.  
 164. *Tapes inæqualis*, *Sowb. jun.* 77.  
 165, 166. — *anatina*, *Sowb. jun.* 78.  
 167. — *fluctuosa*, *Sowb. jun.* 74.  
 227, 228. *Venus parva*, *Sowb. jun.* 110.  
 229. — *histrionica*, 32.  
 230. — *flexuosa*, *Gmel.* 39.  
 231. — *sphaerisulca*, *Desh.* 111.



ALPHABETICAL LIST OF SPECIES OF THE GENERA  
VENERUPIS, PETRICOLA, ASTARTE, CYPRINA,

WITH ADDITIONS AND EMENDATIONS TO THE LIST OF OTHER GENERA  
OF VENERIDÆ.

- albo-dorsata*, Sowb. *jun.*, Cyth. App. sp. 123. pl. 168. f. 212, 213.  
*amygdalina*, Pet., not identified.  
*anatina*, Sowb. *jun.*, Tap. App. sp. 76. pl. 168. f. 165, 166.  
*Arctica*, Gray, Ast. 7. pl. 167. f. 17, 18, 20.  
*arcuata*, v. Venerup., sp. 28.  
*Banksii*, Leach, Ast. 11. pl. 167. f. 8.  
*bicolor*, Sowb. *jun.*, Pet. 18. pl. 165. f. 22.  
*bidentata*, Pet., not identified.  
*bilunata*, Con., Ast., not identified.  
*bipartita*, Ast. *Ph.* is a *Circe*.  
*bipartita*, Desh., Pet. 15. pl. 166. f. 22.  
*borealis*, Chemn., Ast. *Arctica*, 7.  
*Californica*, v. Venerup. sp. 28.  
*carditoides*, Lamk., Venerup. 4. pl. 164. f. 4.  
*castanea*, Say, Ast. 15, pl. 167. f. 14, 15.  
*Chinensis*, Desh., Pet. 16. pl. 166. f. 15.  
*Chinensis*, Desh., Venerup. 22. pl. 165. f. 29.  
*compressa*, Mont., Ast. 12. pl. 167. f. 6, 7.  
*concinna*, Sowb., Pet. 8. pl. 166. f. 3.  
*cor*, Hanl., figured as Cyth. *Tellinoides*.  
*Cordieri*, Desh., Venerup. 14. pl. 164. f. 2.  
*cornubiensis*, v. Venerup., sp. 1.  
*corrugata*, Brown, Ast. *Arctica*.  
*costata*, v. Petricola, sp. 20.  
*costellata*, Pet., not identified.  
*costellata*, v. Petricola, sp. 12.  
*crassatella*, Ast. *sulcata*, sp. 1.  
*crassidens*, Ast. *castanea*, 15.



- crebricosta*, *Forbes*, Ast. 5. pl. 167. f. 10.  
*crenata*, *Lamk.*, Venerup. 5. pl. 164. f. 18, 19.  
*cultellus*, *Desh.*, Pet. 4. pl. 166. f. 2, 5.  
*Cumingii*, *Desh.*, Venerup. 21. pl. 164. f. 12.  
*cylindracea*, *Desh.*, Venerup. 28. pl. 165. f. 36, 37, 38.  
*cyprinoides*, *Duval*, Ast. Arctica, 7.  
*dactylus*, *Sowb.*, Pet. 5. pl. 166. f. 4.  
*Danmoniensis*, Ast. sulcata, sp. 1.  
*decussata*, v. Venerup. sp. 10.  
*decussata*, v. Petricola, sp. 12.  
*denticulata*, *Sowb.*, Pet. 6. pl. 166. f. 6, 7.  
*derelecta*, *Desh.*, Venerup. 9. pl. 164. f. 16.  
*Diemenensis*, *Quoy*, Venerup. 11. pl. 164. f. 11.  
*difficilis*, Astarte, not identified.  
*discors*, Pet., not identified.  
*distans*, Venerup., not identified.  
*divaricata*, *Chenn.*, Pet. 19. pl. 166. f. 24, 25.  
*dura*, *Gmel.*, takes precedence of Ven. rariflamma.  
*elegans*, *Desh.*, Pet. 9. pl. 166. f. 8.  
*elliptica*, Cyth., not identified.  
*elliptica*, *Brown*, Ast. 1. pl. 167. f. 4.  
*elliptica*, *Sowb.*, Pet. 10. pl. 166. f. 10.  
*exotica*, *Hanl.*, Venerup. 3. pl. 164. f. 7.  
*fimbriata*, *Sowb. jun.*, Venerup. 12. pl. 165. f. 23.  
*flabagella*, Pet., not identified.  
*flexuosa*, Venus, add. f. 230. f. 168.  
*fluctuosa*, *Gould*, Tap. pl. 168. f. 167.  
*foliacea*, *Desh.*, Venerup. 6. pl. 164. f. 8, 9.  
*foliatus*, v. Venerup. sp. 1.  
*fornicata*, v. Petricola, sp. 7.  
*fusca*, *Poli*, Ast. 16. pl. 187. f. 24.  
*gibba*, v. Petricola, sp. 7.  
*gracilis*, *Desh.*, Pet. 3. pl. 166. f. 12.  
*grata*, *Desh.*, Cyth. App. sp. 121.  
*Gueri*, *Hanl.*, Cyth. pl. 136. f. 177, and pl. 143. f. 208, 9, 10.  
*histrionica*, Ven. add. f. 229. pl. 168.  
*immaculata*, Cyth., not identified.  
*incrassata*, Ast. fusca, 16.



- inæqualis*, *Sowb. jun.*, Tap. App. sp. 77, pl. 168, f. 164.  
*insignis*, *Desh.*, Venerup. 7. pl. 164. f. 5, 6.  
*interjecta*, *Desh.*, Venerup. 18. pl. 164. f. 14.  
*intermedia*, *Sowb. jun.*, Ast. 3. pl. 167. f. 11.  
*interstriata*, *Sowb. jun.*, Venerup. 17. pl. 165. f. 26.  
*Irus*, *Linn.*, Venerup. 1. pl. 164. f. 1, and var. pl. 165. f. 31, 32.  
*Japonica*, Ast. Arctica, 7.  
*Jukesii*, *Desh.*, by error, Ven. crebrisulca.  
*lactea*, *Brod.*, Ast. 9. pl. 167. f. 21, 22, 23.  
*lapidica*, *Chemn.*, Pet. 20. pl. 166. f. 26.  
*latisulca*, Ast. undata, 3.  
*lævis*, Ast., not identified.  
*lineolata*, *Sowb. jun.*, Cyth. App. sp. 124. pl. 168, f. 212, 213.  
*lithophaga*, *Retz.*, Pet. 12. pl. 166. f. 18, 19.  
*macrophylla*, *Desh.*, Venerup. 2. pl. 165. f. 20.  
*mesodesma*, takes precedence of *V. spurca*.  
*minutissima*, Ast. triangularis, 13.  
*mirabilis*, *Desh.*, Venerup. 13. pl. 165. f. 24.  
*mitis*, *Desh.*, Venerup. 8. pl. 165. f. 22.  
*Montagui*, Ast., not identified.  
*monstrosa*, *Chemn.*, Venerup. 20. pl. 164. f. 13.  
*Mortoni*, Ast. undata, 3.  
*multicosta*, Ast. compressa, 12.  
*nivea*, *Chemn.*, Pet. 7. pl. 166. f. 13, 14.  
*nucleus*, Venerup., not identified.  
*Nuttallii*, *Conrad*, Venerup. 16. pl. 164. f. 10.  
*obesa*, *Desh.*, Venerup. 19. pl. 164. f. 15.  
*oblonga*, *Sowerby*, Venerup. 11. pl. 165. f. 21.  
*oblonga*, *Sowb. jun.*, Ast. 10. pl. 167. f. 19.  
*ovata*, Ast. elliptica, 2.  
*parva*, *Sowb. jun.*, Ven. sp. 110. App. pl. 168. f. 227, 228.  
*paupercula*, *Chemn.*, takes precedence of *V. Kochii*, Ph.  
*paupercula*, *Desh.*, Venerup. 24. pl. 165. f. 30.  
*Petricola*, v. P. lithophaga, sp. 12.  
*Pholadiformis*, *Lamk.*, Pet. 1. pl. 166, f. 1.  
*planatella*, Cyth., not identified.  
*planicosta*, *Desh.*, Venerup. 26. pl. 165. f. 33.  
*planisulcata*, *Sowb. jun.*, Cyth. App. sp. 122.



- Portlandica*, Ast., not identified.  
*pulchra*, *Desh.*, Cyth. elegans, *by error*.  
*pulcherrima*, *Desh.*, Venerup. 15. pl. 165. f. 28.  
*quadrans*, *Gould*, Ast. 14. pl. 167. f. 5.  
*robusta*, *Sowerby*, Pet. 14. pl. 166. f. 16, 17.  
*rocellaria*, v. Petricola, sp. 12.  
*rotunda*, *Gmel.*, takes precedence of Ven. papilionacea, 2.  
*rugosa*, v. Petricola, sp. 7.  
*rugosa*, *Desh.*, Venerup. 23. pl. 165. f. 25.  
*ruperella*, v. Petricola, sp. 12.  
*Scotica*, Ast. sulcata, sp. 1.  
*semilamellata*, *Lamk.*, Pet. 17. pl. 166. f. 23.  
*semisulcata*, *Leach*, Ast. 8. pl. 167. f. 16.  
*semisulcata*, Ast. sulcata, sp. 1, Ast. elliptica, sp. 2.  
*serrata*, *Desh.*, Pet. 2. pl. 166. f. 11.  
*serrata*, v. Venerup., sp. 5.  
*solida*, *Sowb.*, Pet. 11. pl. 166. f. 9.  
*sphaerisulca*, *Desh.*, Ven. sp. 111. App. pl. 168. f. 231.  
*siliqua*, *Desh.*, Venerup. 25. pl. 165. f. 27.  
*simplex*, *Sowb. jun.*, Cyth. App. sp. 125. pl. 168. f. 217.  
*striata*, Ast. compressa, 12.  
*striata*, v. Petricola, sp. 12.  
*subæquilatera*, *Sowb. jun.*, Ast. 6. pl. 167. f. 13.  
*subglobosa*, v. Venerup., sp. 28.  
*sulcata*, *Costa*, Ast. 1. pl. 167. f. 1, 2, 3.  
*sulcata*, *Gray*, *by error*, Cyth. plebeja.  
*tenuis*, v. Petricola, sp. 7.  
*triangularis*, *Mont.*, Ast. 13. pl. 167. f. 9.  
*triquetra*, Ast. triangularis, 13.  
*tumens*, *Gmel.*, Cyth. striata, *by error*.  
*tumida*, *Sowb. jun.*, Venerup. 27. pl. 165. f. 34, 35.  
*typica*, *Jonas*, Pet. 13. pl. 166. f. 21.  
*undata*, *Gould*, Ast. 4. pl. 167. f. 12.  
*undulata*, *Born*, takes precedence of Ven. rimosa, 11.  
*ventricosa*, v. Petricola, sp. 5.  
*vulgaris*, Cyprina Islandica, 1.







A S T A R T E









CYPRINA



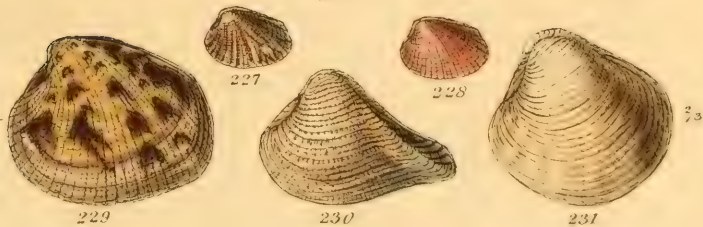
CYTHEREA



TAPES



VENTUS









MONOGRAPHS OF THE GENERA  
 EULIMA, NISO, LEIOSTRACA, OBELISCUS,  
 PYRAMIDELLA, AND MONOPTYGMA.

By ARTHUR ADAMS, SURGEON, R.N., F.L.S., ETC.

GENUS EULIMA, Risso.

Tongue unarmed; tentacles simple, subulate, eyes sessile at their outer bases; mantle enclosed, with a rudimentary siphonal fold; foot linguiform, produced in front, with a bilobed mentum, operculigerous lobe developed, at the sides, into even-edged, unequal expansions or lobes.

Operculum horny, ovate, subspiral.

Shell elongated, white, smooth, polished; spire produced, many-whorled, frequently with an interrupted varix on one side, apex acute; aperture oval, pointed behind, inner lip reflexed over the pillar; axis imperforate; outer lip thickened internally.

*Syn.* Pasithea, *J. Lea*; Polyphemopsis, *Portlock*; Balcis, *Leach*.

1. EULIMA POLITA (pl. clxix. f. 1), *Linn.* (*Helix*), *Syst. Nat.* ed. 12, p. 1241. *Strombiformis albus*, *Costa*. *Turbo albus*, *Donov.* *Turbo politus*, *Turt.* *Rissoa Boscii*, *Payr.* *Phasianella polita*, *Flem.* *Melania Boscii*, *Phil.* *Eulima Anglica*, *Sow.* *Conch. Ic.* fig. 5.

E. testâ elongato-turritâ, solidâ, eburneâ, nitidissimâ; anfractibus angustis, planis, contiguis; aperturâ minimâ, ovatâ, supernè acuminatâ.

Elongately turreted, solid, white, subopaque, polished; whorls narrow, flattened; aperture small, ovate, acuminate posteriorly.

British Islands, etc. (*Mus. Cuming.*)

2. EULIMA DISTORTA (pl. clxix. f. 6), *Deshayes*, *Desc. des Coq. Foss. de Paris.* *Melania distorta*, *Phil. Moll. Sicil.* vol. i. p. 158. pl. 9. f. 10.



E. testâ minimâ, elongato-subulatâ, distortâ, nitidissimâ, pelucidâ; anfractibus planulatis, contiguïs; aperturâ lanceolatâ.

Elongately subulate, polished, semipellucid, distorted; whorls flattened; aperture lanceolate.

Sicily, Britain, etc. (Mus. Cuming.)

3. *EULIMA MAJOR* (pl. clxix. f. 3, 4), *Sowerby*, Pro. Zool. Soc. 1834; Conch. Illustr. ff. 1, 1\*, 1\*\*.

E. testâ acuminato-pyramidali, opacâ, lacteâ; anfractibus convexiusculis; aperturâ ovato-acutâ, basi dilatâ; labro arcuato.

Elongated, turriculate, inflexed, white, smooth, opaque; whorls convex, narrow, numerous; aperture oval-oblong, acute posteriorly; outer lip simple, obtuse, arcuated.

Tahiti. (Mus. Cuming.)

4. *EULIMA HASTATA* (pl. clxix. f. 7, 8), *Sowerby*, Pro. Zool. Soc. 1834; Conch. Illustr. f. 10.

E. testâ breviusculâ, albâ, prope apicem testaceâ; aperturâ ovatâ, margine laterali anticoque subangulatis.

Whorls flattened, the first opaque and yellowish, the last white and diaphanous, the last whorl subangular; aperture small, oval, pointed posteriorly.

Sancta Elena. (Mus. Cuming.)

5. *EULIMA ARTICULATA* (pl. clxix. f. 15), *Sowerby*, Pro. Zool. Soc. 1834; Conch. Illustr. f. 12.

E. testâ acuminato-pyramidali, albâ, fusco articulâtâ et marmoratâ; anfractibus subrotundatis, varicibus subprominulis; labio externo crassiusculo.

Acuminately pyramidal, white, articulated and marbled with fuscous; whorls roundish; varices rather prominent; outer lip a little thickened.

Shores of Australia. (Mus. Cuming.)

6. *EULIMA SUBANGULATA* (pl. clxix. f. 11, 12), *Sowerby*, Pro. Zool. Soc. 1834; Conch. Illustr. f. 3.

E. testâ acuminato-pyramidali, tenui, opacâ, albâ; anfractu ultimo anticè subangulato.

Acuminately pyramidal, thin, opaque, white; last whorl anteriorly somewhat angulated.

Indian Ocean. (Mus. Cuming.)

7. *EULIMA PUSILLA* (pl. clxix. f. 9, 10, 21), *Sowerby*, Pro.



Zool. Soc. 1834; Conch. Illustr. f. 6. *Eulima Jamaicensis*, *C. B. Adams*.

E. testâ acuminato-pyramidali, tenui, hyalinâ, albâ; anfractibus longiusculis; aperturâ ovali, posticè coarctato-acuminatâ.

Straight, subulate, thin, white, transparent; whorls slightly convex; aperture elongate-oval, pointed posteriorly.

Sancta Elena. (Mus. Cuming.)

8. *EULIMA MARTINII* (pl. clxix. f. 6), *A. Adams*.

E. testâ subulato-pyramidali, albâ, solidâ, politâ, apice flexuosâ; anfractibus numerosis, planulatis, varicibus impressis, continuis, ad latus dextrum usque ad apicem extendentibus, anfractu ultimo subangulato; aperturâ ovali; labio anticè incrassato et reflexo; labro in medio producto.

Acuminately pyramidal, white, solid; whorls numerous, flattened, with a continuous varix at the right side, last whorl rather angulated; inner lip expanded and thickened anteriorly; outer lip sinuous, produced in the middle.

China Sea, *Capt. Martin*. (Mus. Cuming.)

9. *EULIMA SOLIDULA* (pl. clxix. f. 13), *Adams et Reeve*. Zool. Voy. Sam. Moll. p. 53. pl. 11. f. 27.

E. testâ abbreviato-turritâ, solidulâ, tortuosâ, varicosâ; anfractibus novem ad decem, convexis; aperturâ parvâ, eburneâ.

Solid, opaque, white, tortuous, with irregular varices; whorls convex, nine to ten; aperture small.

China Sea.

10. *EULIMA TORTUOSA* (pl. clxix. f. 14), *Adams et Reeve*, Zool. Voy. Sam. Moll. p. 53. pl. 11. f. 26.

E. testâ tortuosâ, acuminatâ; anfractibus duodecim ad quatuordecim, plano-contiguâ, obliquè varicosis; aperturâ parviusculâ, eburneâ, infra suturas obscure lineatâ.

Tortuous, acuminated; whorls twelve to fourteen, flattened, with oblique varices; aperture small, white, opaque, obscurely lineated beneath the sutures.

China Sea.

11. *EULIMA PYRAMIDALIS* (pl. clxix. f. 16), *A. Adams*.

E. testâ subulato-pyramidali, albâ, nitidâ, subpellucidâ; anfractibus decem, planulatis, lineâ impressâ, prope suturas, instructis; anfractu ultimo subangulato; aperturâ oblongo-ovali; labro margine in medio subproducto.



White, shining, subpellucid; whorls ten, flattened, with an impressed line near the sutures, last whorl somewhat angulated; aperture oblong-oval; outer lip with the margin rather produced in the middle.

Isle of Capul; on the reefs, in sand, low water. *H. C.* (Mus. Cuming.)

12. *EULIMA NITIDULA* (pl. clxix. f. 18), *A. Adams.*

*E. testâ* subulato-turritâ, albidâ, solidâ, subopacâ; anfractibus undecim, planulatis, ultimo rotundato, anticè subproducto; aperturâ oblongâ; labio anticè subreflexo.

Subulately turreted, white, solid, rather opaque; whorls eleven, flattened, the last rounded; aperture oblong, anteriorly somewhat produced; inner lip anteriorly subreflexed.

Singapore; coarse gravel and sand, twelve fathoms. (Mus. Cuming.)

13. *EULIMA FLEXUOSA* (pl. clxix. f. 22), *A. Adams.*

*E. testâ* subulato-turritâ, flexuosâ, albâ, solidâ, subopacâ; anfractibus quindecim, planulatis, lineâ impressâ subpellucidâ ad suturas, anfractu ultimo rotundato; aperturâ oblongâ; labro margine flexuoso, in medio producto.

Subulately turreted, flexuous, white, solid, subopaque; whorls fifteen, flattened, with a subpellucid impressed line at the sutures, last whorl rounded; aperture oblong; outer lip with the margin flexuous and produced in the middle.

*Hab.* —? (Mus. Cuming.)

14. *EULIMA TEINOSTOMA* (pl. clxix. f. 23), *A. Adams.*

*E. testâ* subulato-turritâ, rectâ, albidâ, nitidâ, subpellucidâ; anfractibus duodecim, planulatis, lineâ impressâ infra suturas, anfractu ultimo rotundato; aperturâ oblongo-ovali, anticè productâ; labio rectiusculo, anticè reflexo; labro margine in medio dilatato.

Straight, white, shining, rather pellucid; whorls twelve, flattened, with an impressed line beneath the sutures, last whorl rounded; aperture oblong-oval, anteriorly produced; inner lip rather straight, reflexed anteriorly; outer lip with the margin dilated in the middle.

Feejee Islands; on coral reefs, low water. (Mus. Cuming.)

15. *EULIMA OBESULA* (pl. clxix. f. 34), *A. Adams.*

*E. testâ* pyramidato-ovali, albâ, nitidâ, solidâ, opacâ; anfractibus



sex, convexis, anfractu ultimo rotundato; aperturâ oblongo-ovali; labro margine incrassato, nec marginato aut reflexo.

Pyramidately oval, white, shining, solid, opaque; whorls six, convex, the last rounded; aperture oblong-oval; outer lip with the margin thickened, but not marginate or reflexed.

Gindulman, isle of Bohol; in soft mud, eight fathoms. *H. C.* (Mus. Cuming.)

16. *EULIMA CUSPIDATA* (pl. clxix. f. 33), *A. Adams.*

E. testâ subulato-pyramidali, albidâ, solidâ, rectâ; anfractibus duodecim, convexiusculis, anfractu ultimo rotundato; aperturâ oblongo-ovali; labio anticè calloso, subrecto; labro acuto.

Subulately pyramidal, whitish, solid, straight; whorls twelve, rather convex, the last rounded; aperture oblong-oval; inner lip anteriorly callous, rather straight; outer lip acute.

Sibonga, island of Zebu; on loose coral, under stones, low water. *H. C.* (Mus. Cuming.)

17. *EULIMA ACUTA* (pl. clxix. f. 29, 30), *Sowerby*, Pro. Zool. Soc. 1834.

E. testâ aciculato-turritâ, albidâ, rectâ, subopacâ; anfractibus duodecim, planiusculis, ultimo rotundato; aperturâ oblongâ, anticè subreflexâ; labio subincrassato; labro margine recto.

Aciculate, white, straight, rather opaque; whorls twelve, flattened, the last rounded; aperture oblong, anteriorly subreflexed; inner lip thickened; outer lip with the margin straight.

Sual, Province of Cagayan, island of Luzon; sandy mud, seven fathoms. *H. C.* (Mus. Cuming.)

18. *EULIMA PORCELLANA* (pl. clxix. f. 25), *A. Adams.*

E. testâ subulatâ, albâ, solidâ, opacâ, apice subflexuoso; anfractibus planulatis, tredecim ad quatuordecim, varicibus impressis, irregularibus, lateralibus; aperturâ oblongo-ovali; labio anticè calloso, vix reflexo; labro margine in medio dilatato.

Subulate, white, solid, opaque, apex rather flexuous; whorls flattened, thirteen to fourteen, with irregular lateral varices; aperture oblong-oval; inner lip anteriorly callous, slightly reflexed; outer lip with the margin dilated in the middle.

*Hab.* — ? (Mus. Cuming.)

19. *EULIMA GRANDIS* (pl. clxix. f. 24), *A. Adams.*

E. testâ subulato-pyramidali, albâ, solidâ, opacâ, flexuosâ; anfractibus quindecim, planiusculis, varicibus lateralibus continuis



instructis, anfractu ultimo angulato; aperturâ obliquâ, oblongo-ovali; labio anticè calloso; labro margine flexuoso, anticè subreflexo.

Subulately pyramidal, white, solid; opaque, flexuous; whorls fifteen, flattened, with continuous lateral varices, the last whorl angulated; aperture oblique, oblong-oval; inner lip anteriorly callous; outer lip with the margin flexuous, anteriorly subreflexed.

Island of Burias; coral sand, seven fathoms. *H. C.* (Mus. Cuming.)

20. *EULIMA MODICELLA* (pl. clxix. f. 27, 28), *A. Adams.*

*E.* testâ subulato-pyramidal, albâ, semipellucidâ, flexuosâ; anfractibus undecim, planulatis, varicibus lateralibus, continuis, instructis, anfractu ultimo, in medio vix angulatâ; aperturâ ovali, columellâ anticè subrectâ; labro anticè producto.

Subulately pyramidal, white, semipellucid; whorls eleven, flattened, with continuous lateral varices, the last whorl slightly angulated in the middle; aperture oval; columella anteriorly somewhat straight; outer lip anteriorly produced.

Island of Zebu; sandy mud, seven fathoms. *H. C.* (Mus. Cuming.)

21. *EULIMA CUMINGII* (pl. clxix. f. 26), *A. Adams.*

*E.* testâ subulato-turritâ, albâ, rectâ, solidâ, opacâ; anfractibus tredecim, convexiusculis, varicibus irregularibus, impressis, instructis, anfractu ultimo rotundato, aperturâ oblongo-ovali; labio anticè incrassato calloso; labro recto.

Subulately turreted, white, straight, solid, opaque; whorls thirteen, rather convex, with irregular longitudinal varices, last whorl rounded; aperture oblong-oval; inner lip anteriorly thickened and callous; outer lip simple.

Lord Hood's Island, South Seas; on *Avicula margaritifera*. *H. C.* (Mus. Cuming.)

22. *EULIMA IOTA* (pl. clxix. f. 19), *C. B. Adams*, Shells of Panama, p. 198.

*E.* testâ subulatâ, lævi, nitente, lineâ microscopicâ impressâ, supra lineam lacteâ; infra lineam diaphanâ, apice subacutâ; spirâ valdè arcuatâ; anfractibus decem, subconvexis, suturâ conspicuâ; aperturâ parvâ, ovatâ, subeffusâ; labro ad mediam partem producto.

A small species, with a fine line a little below the middle of the whorls, above which line the shell is chalcedonic, white, and translucent, and below which it is transparent.

Panama. (Mus. Cuming.)



23. *EULIMA VITREA* (pl. clxix. f. 35), *A. Adams*.

E. testâ subulatâ, acutâ, rectâ, albidâ, vitreâ; anfractibus planulatis, lineâ impressâ prope suturas, anfractu ultimo rotundato; aperturâ oblongo-ovali; labio anticè recto, in medio vix tortuoso; labro anticè subreflexo.

Subulate, acute, straight, whitish, glassy; whorls flattened, with an impressed line near the sutures, last whorl rounded; aperture oblong-oval; inner lip anteriorly straight, slightly twisted in the middle, outer lip anteriorly subflexous.

Fejee Islands; from the stomach of a *Holothuria*. *Capt. Swain*. (Mus. Cuming.)

24. *EULIMA POLYGYRA* (pl. clxix. f. 36), *A. Adams*.

E. testâ subulato-pyramidali, albâ, subopacâ, apice tortuosâ; anfractibus permultis, planulatis, ultimo angulatis; aperturâ obliquâ, subtetragonali; labio anticè reflexo; labro in medio valdè dilatato.

Subulately pyramidal, white, rather opaque, apex tortuous; whorls very numerous, flattened, the last angulated; aperture oblique, subtetragonal; inner lip anteriorly reflexed; outer lip dilated in the middle.

Cagayan, province of Misamis, isle of Mindanao; sandy mud, fifty fathoms. *H. C.* (Mus. Cuming.)

25. *EULIMA LACTEA* (pl. clxix. f. 2), *A. Adams*.

E. testâ subulatâ, albâ, opacâ, solidâ, politâ; spirâ rectâ, anfractibus planis, varicibus continuis impressis ad latus dextrum instructis; aperturâ ellipticâ, anticè subproductâ; labio anticè reflexiusculo; labro incrassato.

Subulate, solid, white, opaque; whorls flat, with a continuous varix on the right side; spire straight; aperture ovate, oblong, rather produced and everted anteriorly; outer lip somewhat thickened.

Philippines. (Mus. Cuming.)

26. *EULIMA LABIOSA* (pl. clxix. f. 31), *Sowerby*, *Pro. Zool. Soc. Conch. Illustr.* f. 2.

E. testâ acuminato-pyramidali, basi latiusculâ; anfractibus convexiusculis; aperturâ brevi; labro lateraliter dilatato, producto.

The outer lip is sinuous and dilated; the aperture is slightly channelled at the fore part, the outline is conical or pyramidal, the spire is rather contorted, and the last whorl is large and somewhat ventricose.

Isle of Annaa, Pacific. (Mus. Cuming.)



27. *EULIMA BREVIS* (pl. clxix. f. 32), *Sowerby*, Pro. Zool. Soc. 1834, Conch. Illustr. f. 15.

E. testâ brevi, acuminatâ, hyalinâ, varicibus subsecundis; aperturâ anticè rotundatâ.

The spire of this species is short, rather inflexed, and composed of numerous convex whorls; the last whorl is large; the aperture is oval and rounded anteriorly, and the outer lip is somewhat dilated, reflexed, and produced anteriorly.

Pacific Ocean; on the shells of the Pearl Oyster. (Mus. Cuming.)

28. *EULIMA NITIDA* (pl. clxix. f. 17, 20), *Lamarck* (*Melania*), Hist. An. s. vert. vol. viii. p. 447. no. 8.

E. testâ subulatâ, albâ, glabrâ, nitidissimâ; anfractibus quinque, planulatis; aperturâ ovato-acutâ, anticè subreflexâ; labro acuto, arcuato.

Small, subulate, white, polished; whorls from four to five, flattened; aperture acutely ovate, somewhat dilated, and everted anteriorly; outer lip simple, arcuated.

Mediterranean.

## GENUS NISO, Risso.

Animal as in *Eulima*.

Operculum horny, subspiral.

Shell subulate, turreted, many-whorled, axis perforated; aperture oval, anteriorly angulated; outer lip simple, acute; umbilicus very deep, extending as far as the apex of the spire.

*Syn.* *Bonellia*, *Desh.*, not *Rolando*; *Janella*, *Grat.*, not *Gray*.

1. *NISO TEREPELLUM* (pl. clxx. f. 6, 7), *Chemnitz* (*Turbo*), Conch. 10. t. 165. f. 1592, 1593. *Bulimus terebellatus*, *Lam. Hist.* *Helix terebellata*, *Brocc.* *Bonellia terebellata*, *Desh.*

N. testâ acuminato-pyramidali, brunneâ aut sordidè albâ; anfractibus paullulum rotundatis; umbilico magno, patulo, peromphalo angulato; aperturâ anticè angulatâ et productâ.

Acuminately pyramidal, brown or dirty white; whorls somewhat rounded; umbilicus large, open, the circumference angulated; aperture produced and angulated anteriorly.

Nicobar. (Mus. Cuming.)



2. NISO MARMORATA (pl. clxx. f. 2), *Sowerby* (Eulima), Sow. Conch. Illustr. f. 8.

N. testâ subulatâ, albido brunneoque marmoratâ; anfractibus convexiusculis; umbilico magno, patulo; aperturâ anticè angulatâ.

Subulate, whitish, marbled with brown; whorls slightly rounded; umbilicus large and patulous; aperture angular in front.

Philippine Islands. (Mus. Cuming.)

3. NISO INTERRUPTA (pl. clxx. f. 9), *Sowerby* (Eulima), Pro. Zool. Soc. Jan. 1834; Conch. Illustr. f. 11.

N. testâ acuminato pyramidal, albicante, ad varices brunneo maculatâ; umbilico mediocri; aperturâ anticè angulatâ.

Acuminately pyramidal, whitish, spotted with brown at the varices; umbilicus moderate; aperture anteriorly angulated.

Central America; dredged in coarse sand at from eleven to thirteen fathoms. (Mus. Cuming.)

4. NISO SPLENDIDULA (pl. clxx. f. 8), *Sowerby* (Eulima), Pro. Zool. Soc. Jan. 1834; Conch. Illustr. f. 7. Bon. splendidula, *Desh.*

N. testâ acuminato-pyramidal, brunnescente, prope suturas albo castaneoque articulatâ; umbilico magno; aperturâ anticè angulatâ.

Acuminately pyramidal, brownish, articulated near the sutures with white and chestnut; umbilicus large; aperture anteriorly angulated.

Sancta Elena; sandy mud, six to eight fathoms. (Mus. Cuming.)

5. NISO BRUNNEA (pl. clxx. f. 3), *Sowerby* (Eulima), Pro. Zool. Soc.; Conch. Illustr. f. 9. Bonellia brunnea, *Desh.*

N. testâ acuminato-pyramidal, brunneâ; anfractibus rotundatis; umbilico parvo; aperturâ anticè rotundatâ.

Acuminately pyramidal, brown; whorls rounded; umbilicus small; aperture anteriorly rounded.

Island of Haynan, China Sea. (Mus. Cuming.)

6. NISO GONIOSTOMA (pl. clxx. f. 1), *A. Adams.*

N. testâ acuminato-pyramidal, lævi, nitidâ, albidâ; anfractibus duodecim, planis, longitudinaliter substriatis, fasciâ latâ luteofuscâ ornatis, anfractu ultimo subangulato; umbilico profundo, aperto, margine crenulato; aperturâ elongato-ovali, anticè angulatâ et valde productâ.



Distinguished by the broad band in the middle of the whorls, and by the angular, produced aperture.

Isle of Burias; seven fathoms, fine sand. (Mus. Cuming.)

7. NISO CANDIDULA (clxx. f. 4, 5), *A. Adams*.

N. testâ subulato-pyramidali, albidâ, nitidâ, longitudinaliter substriatâ; anfractibus quatuordecim, convexiusculis, ultimo subangulato; aperturâ ellipticâ, anticè productâ, angustatâ; labio subreflexo; umbilico mediocri, perspectivo, margine corrugato.

A white, solid, pyramidal species, with the sides slightly concave, the last whorl somewhat angulated, and with a rather narrow, corrugated umbilicus.

Philippines. (Mus. Cuming.)

8. NISO IMBRICATA (pl. clxx. f. 10), *Sowerby* (*Eulima*), *Pro. Zool. Soc.* 1834; *Conch. Illustr.* f. 4.

N. testâ acuminato-pyramidali, albidâ, longitudinaliter spadiceolineatâ; anfractibus infrâ angulatis, prominentibus; umbilico parvo; aperturâ anticè angulatâ.

Acuminately pyramidal, whitish, longitudinally lineated with light red; whorls angulated below, prominent; umbilicus small; aperture anteriorly angulated.

Sancta Elena; in sandy mud, from six to eight fathoms. (Mus. Cuming.)

GENUS LEIOSTRACA, H. et A. Adams.

Shell turreted, subulate, flattened, widest from side to side, polished, smooth, semipellucid; sides with a thin varix extending as far as the apex of the spire; aperture oblong, entire; inner lip distinct, callous, slightly sinuous in the middle; outer lip flexuous.

This genus comprises a suite of small polished shells resembling *Eulima*, but they are always straight and laterally compressed; the whorls are usually adorned with a coloured band, the aperture is elongate, and the sides of the whorls are furnished with thin varices.

1. LEIOSTRACA METCALFEI (pl. clxx. f. 12, 13), *A. Adams*.

L. testâ aciculato-fusiformi, compressâ, lateribus varicibus impressis continuis instructis; anfractibus planis, cingulâ rufâ lineis-



que undulatis, longitudinalibus ornatis; anfractu ultimo elongato, cingulis duabus transversis ornato; labio calloso; labro margine flexuoso.

This species, the most typical of the genus, is remarkably compressed, with the varices continuous on each side; besides the usual coloured zones peculiar to this group, there are likewise irregular, longitudinal streaks of the same colour.

2. *LEIOSTRACA SUBULATA* (pl. clxx. f. 15, 16), *Donovan* (Turbo), Brit. Shells, vol. v. pl. 172. *Helix subulata*, *Montagu*. *Helix flavocincta*, *Meg.* *Melania Cambessedesii*, *Payr.* *Eulima subulata*, *Risso*. *Melania Donovanii*, *Forbes*. *Eulima lineata*, Sow. Conch. Ill. f. 13? *Strombiformis glaber*, *Costa?* *Turbo trifasciatus*, *Adams*.

L. testâ fusiformi, tenui, albâ, lineis fuscis, duabus, spiralibus; aperturâ oblongâ.

Fusiform, thin, white, with two spiral red-brown bands; aperture oblong.

British Islands, etc. (Mus. Cuming.)

3. *LEIOSTRACA ACUTA* (pl. clxx. f. 25), *Sowerby*, Pro. Zool. Soc. 1834.

L. testâ turrito-acutâ, albâ; anfractibus duodecim, lævibus, suturis obsoletis, varicibus sparsis.

Acutely turreted, white; whorls twelve, smooth, sutures obsolete, varices few.

Bay of Montiji, Central America. (Mus. Cuming.)

4. *LEIOSTRACA BILINEATA* (pl. clxx. f. 20, 21, 22), *Alder* (*Eulima*), Moll. Northumb. and Durh. p. 47. *Helix subulata* (var.), *Mont.* *Phasianella subulata*, *Flem.* *Pyramis subulata*, *Brown*.

L. testâ subulatâ, tenui, pellucidâ, albidâ, lineis duabus, rufo-fuscis, spiralibus ornatâ; anfractu ultimo subventricosos; aperturâ oblongâ, columellâ vix arcuatâ.

This species differs from *L. subulata* in being smaller, in having only two bands, close together, in the centre of the body-whorl, in the whorls being less oblique, and in the aperture not being quite so much contracted.

British Islands.

5. *LEIOSTRACA MINDORENSIS* (pl. clxx. f. 14), *Adams et Reeve* (*Eulima*), Zool. Voy. Sam. Moll. p. 52. pl. 11. f. 25.



L. testâ elongato-turritâ, basi subobesâ, suturis impressis; anfractibus decem, convexis; aperturâ ovata; pellucido-albâ, opaco-albo maculatâ et lineatâ.

Elongate-turreted; whorls rather convex, sutures impressed; nearly transparent, mottled with opaque white; aperture oblong.

Mindoro Sea; Philippines.

6. *LEIOSTRACA VARIANS* (pl. clxx. f. 23, 24), *Sowerby* (Eulima), *Pro. Zool. Soc.* 1834; *Conch. Illustr.* f. 14.

L. testâ subfusiformi, acuminatâ, tenui, coloribus variâ; aperturâ oblongâ.

Subfusiform, acuminate, thin, colour various; aperture oblong. Some varieties are white, others brown, and others are marked with brown lines and are mottled.

Xipixapi, Meridional America. (Mus. Cuming.)

7. *LEIOSTRACA UNILINEATA* (pl. clxx. f. 17), *Adams et Reeve* (Eulima), *Zool. Voy. Sam. Moll.* p. 52. pl. 11. f. 23.

L. testâ aciculatâ; anfractibus octo, plano-contiguïs; aperturâ suboblongâ; rufo-brunneâ, lineâ unicâ nigrante cingulatâ.

A rich red-brown, sharply aciculated species, with the sutures almost obsolete, and encircled throughout with a faint blackish line.

Sooloo Sea.

8. *LEIOSTRACA BIVITTATA* (pl. clxx. f. 18, 19), *H. et A. Adams*, *Genera of Recent Mollusca*. Eulima bilineata, *Adams et Reeve*, *Zool. Voy. Sam.* p. 52. pl. 11. f. 24.

L. testâ aciculatâ; anfractibus novem ad decem, plano-convexis; aperturâ oblongâ; labro supernè inflexo; pellucido-albâ, vitreâ, lineis tenuibus, castaneis cingulatâ.

A light, transparent, glassy species, encircled with two delicate, brown lines, of which the lower falls exactly in the place of the sutures.

Sooloo Sea (from the stomach of an *Echinus*).

9. *LEIOSTRACA RECTA* (pl. clxx. f. 25), *C. B. Adams* (Eulima), *Shells of Panama*, p. 199.

E. testâ elongatâ, ovato-conicâ, albidâ, fasciâ unâ opacâ, et alterâ diaphanâ infra-suturalibus ornatâ, ad labrum et ad gradus ætatis fusco, exilè bimaculatâ, lævi, nitente, striis nonnullis gradus ætatis monstrantibus; apice acutissimâ; spirâ rectâ, conicâ; anfractibus undecim, subplanulatis, suturâ inconspicuâ; anfractu



ultimo elongato ; aperturâ angulatâ, supra acutissimâ ; labro acuto ; columellâ robustâ, subrectâ.

Shell chalcedonic white, with an opaque, and another less opaque, spiral band at the upper part of the whorls, and with two minute brown spots on the outer lip.

Panama. (Mus. Cuming.)

## GENUS OBELISCUS, Humphrey.

Animal as in *Pyramidella*.

Operculum horny, ovate ; inner edge sinuated.

Shell subulate, turreted, many-whorled, smooth ; spire pointed, nucleus sinistral ; aperture semi-oval, entire and rounded anteriorly ; columella plicated ; outer lip acute.

This genus differs from *Pyramidella* in the whorls being smooth and not longitudinally plicate ; the shells, moreover, are subulate, and of a porcellaneous structure, and the columella is somewhat straight.

1. OBELISCUS DOLABRATUS (pl. clxxi. f. 1, 2, 3), *Linnaeus* (Trochus), Gmel. p. 3585. no. 113. *Helix dolabrata*, *Müll.* Verm. p. 121. no. 318. *Bulimus dolabratus*, *Brug.* Dict. no. 99. *Pyramidella terebellum*, *Encycl.* pl. 452. f. 2. *Pyramidella dolabrata*, *Lam.* ed. Desh. vol. iv. p. 55.

O. testâ conico-turritâ, perforatâ, lævi, albâ, lineis luteis cinctâ ; columellâ recurvâ ; labro intus dentato et sulcato.

Turreted, umbilicated, smooth, white, encircled with yellowish transverse bands ; the whorls are more convex than in *O. terebellum*, and the outer lip is strongly grooved internally.

West Indies. (Mus. Cuming.)

2. OBELISCUS TEREHELLUM (pl. clxxi. f. 5, 6), *Müller* (*Helix*), Verm. p. 123. no. 319. *Bulimus terebellum*, *Brug.* Dict. no. 98. *Trochus dolabratus* (var.), *Gmel.*, p. 3586. *Trochus terebellum*, *Dillw.*, Cat. no. 119.

O. testâ conico-turritâ, umbilicatâ, lævi, albâ, lineis rufis cinctâ ; columellâ recurvâ ; labro intus lævigato.

Turreted, subulate, smooth, white, with transverse, reddish-brown zones, usually three on each whorl, and four on the last whorl ; aperture oval, entire in front ; columella with three anterior plaits.

West Indian Islands. (Mus. Cuming.)



3. *OBELISCUS PUNCTATUS* (pl. clxxi. f. 14, 27), *Chemnitz* (Turbo), *Conch.* pl. 4. f. 1493, 1494. *Plotia guttata*, *Link*, teste *Mörch*, *Cat. Yold.* *Pyramidella maculosa*, *Lam.* ed. *Desh.*, vol. iv. p. 56; *Kien. Mon. Pyram.* pl. 2. f. 5. *Pyram. punctata*, *Schub. et Wagn.* *Chem. Suppl.* pl. 234. f. 4099 *a b*.

*O.* testâ turrito-subulatâ, longitudinaliter striatâ, albidâ, maculis punctisque rufis sparsim pictâ; anfractibus numerosis, ultimo spirâ multo brevior.

Subulately turreted, smooth, greyish-white, with numerous brown spots arranged in transverse rows, usually three in each whorl, and five in the last; columella with three unequal plaits.

Pacific Ocean, Isle of France, etc. (*Mus. Cuming.*)

4. *OBELISCUS VENTRICOSUS* (pl. clxxi. f. 13, 15), *Guérin* (*Pyramidella*), *Mag. de Zool.* pl. 2; *Quoy et Gaim.* *Voy. de l'Astrol.* tab. 2. p. 175. pl. 65. f. 3-7; *Kien. Pyram.* pl. 1. f. 1.

*O.* testâ ovato-oblongâ, lævigatâ, albidâ, rufo-variegatâ, flammulis nigris pictâ; spirâ acutissimâ; anfractibus numerosis, subdepressis; columellâ triplicatâ.

Oval, turreted, smooth, slightly striated longitudinally; last whorl ventricose, whitish, ornamented with longitudinal, undulated, reddish-brown lines; aperture oval; columella with three anterior plaits, the posterior the largest; umbilicus small, with an internal spiral fold.

Island of Vanikoro. (*Mus. Cuming.*)

5. *OBELISCUS MONILIS* (pl. clxxi. f. 12), *A. Adams*.

*O.* testâ turrito-subulatâ, longitudinaliter substriatâ, albâ, ad suturas fusco-maculosâ; anfractibus planiusculis, fasciâ moniliformi, transversâ cinctis, anfractu ultimo rotundato; aperturâ ovali, anticè angustatâ, subcanaliculatâ; columellâ rectâ, plicis tribus (supremâ magnâ, transversâ) instructâ.

Much smaller and more slender than *O. punctatus*, with the whorls more numerous, and of a delicate pattern of colouring.

Dumaguete, Isle of Negros; seven fathoms, coarse sand. *H. C.* (*Mus. Cuming.*)

6. *OBELISCUS CINCTUS* (pl. clxxi. f. 10, 11), *Reeve* (*Pyramidella*), *Pro. Zool. Soc.* Dec. 1842; *Conch. Syst.* vol. ii. pl. 207. f. 2 and 4.

*O.* testâ conico-acuminatâ, albâ; anfractibus lævibus, zonâ olivaceo-fuscâ, conspicuâ, in medio, cinctis; aperturâ oblongo-ovatâ; labro simplici, acuto.



A white, sharply-acuminated species, surrounded with a single, clear, broad, olive-brown belt.

Philippines. (Mus. Cuming.)

7. *OBELISCUS GRACILIS* (pl. clxxi. f. 4), *Brocchi* (Pyramiddella), Conch. Subapp. pl. 6. f. 6 *a b*; Kien. Mon. Pyramid. pl. 2. f. 7.

*O. testâ cylindricâ, angustâ, apice acutissimâ, nitidâ, albidâ; spirâ elongatâ; anfractibus convexiusculis, frequentibus, suturâ simplici, depressâ; aperturâ parvâ, oblongâ.*

A slender, subulate, shining species, with from four to six whorls, the last divided in the middle by a transverse groove; columella nearly straight, with three plaits.

St. Just, Valterra, France. (Mus. Cuming.)

8. *OBELISCUS SULCATUS* (pl. clxxi. f. 34), *A. Adams*.

*O. testâ turrato-subulatâ, longitudinaliter striatâ, albidâ, cinereo-nebulosâ, et maculis rufis sparsim punctatâ; anfractibus convexiusculis, ultimo rotundato; aperturâ ovali, anticè canaliculatâ; columellâ arcuatâ, plicis tribus instructâ.*

I have used a manuscript name of Nuttall's. The species resembles *O. punctatus*, but the whorls are more ventricose, and the style of colouring is very different.

Tahiti; coral sand. Mus. Cuming.

9. *OBELISCUS TURRITUS* (pl. clxxi. f. 17), *A. Adams*.

*O. testâ subulato-turritâ, longitudinaliter striatâ, fulvescente, ad suturas albâ; anfractibus planiusculis, frequentibus, ad suturas crenulatis, suturis profundis, anfractu ultimo rotundato, sulco transverso instructo; aperturâ ovali, anticè productâ, subcanaliculatâ; columellâ rectâ, tortuosâ, plicis tribus munitâ.*

In this species the whorls are very numerous, and white at the sutures, which latter are crenulated, and the aperture is produced in front.

Albrochos Island, North Australia; stones, low water. *J. E. Dring*. (Mus. Cuming.)

10. *OBELISCUS TERES* (pl. clxxi. f. 31, 32), *A. Adams*.

*O. testâ turrato-subulatâ, apice acuto, albidâ; anfractibus numerosis, planulatis, lineolis fuscis transversis, et fasciis undulatis, longitudinalibus, ornatis, suturis profundis, canaliculatis; aperturâ ovali, anticè productâ, subcanaliculatâ; columellâ tortuosâ, plicis tribus instructâ.*



An acuminated, white species, with a single fine line across each whorl, and ornamented, besides, with numerous, longitudinal, undulating streaks.

Island of Panay; on the shore. *H. C.* (Mus. Cuming.)

11. *OBELISCUS TEREHELLOIDES* (pl. clxxi. f. 18), *A. Adams*.

*O. turrito-subulatâ, gracili, subperforatâ, nitidâ, longitudinaliter substriatâ, albâ; anfractibus planiusculis, lineis duabus, rufis cinctis; aperturâ ovali, anticè productâ, subcanaliculatâ; columellâ recurvâ, tortuosâ, biplicatâ.*

Somewhat umbilicated, slender, smooth; a more slender species than *O. terebellum*, with two transverse spiral lines, and with the columella biplicate.

*Hab.* — ? (Mus. Cuming.)

12. *OBELISCUS TESSELLATUS* (pl. clxxi. f. 16), *A. Adams*.

*O. testâ turrito-subulatâ, nitidâ, longitudinaliter substriatâ, rufescenti; anfractibus convexiusculis, maculis quadratis, fuscis, in seriebus tribus, transversis dispositis; anfractu ultimo rotundato; aperturâ ovali, anticè subcanaliculatâ; columellâ subrectâ, plicis tribus instructâ.*

This is regarded by M. Kiener as a variety of *O. punctatus*, but an examination of numerous individuals has convinced me that it is a distinct species.

Island of Masbate; seven fathoms, sandy mud. *H. C.* (Mus. Cuming.)

13. *OBELISCUS PULCHELLUS* (pl. clxxi. f. 20), *A. Adams*.

*O. testâ turrito-subulatâ, subperforatâ, apice acuto; albidâ, fulvescenti, nitidâ; anfractibus planis, cinctellâ rufâ, ad suturas, ornatis, anfractu ultimo rotundato; aperturâ ovali; columellâ rectâ, reflexâ, posticè uniplicatâ.*

A subulate, elongated, elegant, polished species, yellowish-white, differing chiefly from *O. elegans* in the suture not being impressed, and in the broad red band across the whorls.

Japan. (Mus. Cuming.)

14. *OBELISCUS ELEGANS* (pl. clxxi. f. 19), *A. Adams*.

*O. testâ turrito-subulatâ, subperforatâ, apice acutissimo, longitudinaliter et transversim striatâ; fulvâ; anfractibus planis, lineâ rufâ, ad suturas, ornatis, suturis canaliculatis; columellâ posticè uniplicatâ, anticè reflexâ, dilatâ.*

A slender, fulvous, subulate species, which approaches some-



what to *O. gracilis*, but there is only one plait on the columella. From *O. pulchellus* it is distinguished by the channelled sutures, and by the coloured line across the whorls.

Singapore. *Lieut. Taylor.* (Mus. Cuming.)

15. *OBELISCUS ACICULATUS* (pl. clxxi. f. 21), *A. Adams.*

*O. testâ* turrito-subulatâ, angustâ, fulvescenti; anfractibus planis, frequentibus, longitudinaliter substriatis, suturis profundis, anfractu ultimo rotundato; aperturâ ovali, anticè subproductâ; columellâ anticè reflexâ, posticè plicâ validâ instructâ.

A slender, subulate species, of a red-brown colour, with the aperture rather produced in front, and the columella anteriorly reflexed and furnished with a single plait.

Cagayan, province of Misamis; twenty-five fathoms, sandy mud. *H. C.* (Mus. Cuming.)

16. *OBELISCUS PUSILLUS* (pl. clxxi. f. 7), *A. Adams.*

*O. testâ* conico-turritâ, perforatâ, apice obtuso; albâ, nitidâ; anfractibus planiusculis, suturis profundis, anfractu ultimo subangulato; aperturâ ovali, anticè subreflexâ; columellâ rectâ, plicis duabus instructâ.

A small, white, shining species, with the apex obtuse, the last whorl somewhat angulated, and the columella with only two plaits.

Catanuan, province of Luzon; ten fathoms, sandy mud. *H. C.* (Mus. Cuming.)

17. *OBELISCUS BALTEATUS* (pl. clxxi. f. 25), *A. Adams.*

*O. testâ* parvâ, conico-turritâ, perforatâ, albidâ, nitidâ, fasciâ rufâ ornatâ; anfractibus planiusculis, ultimo angulato; aperturâ ovatâ, anticè productâ, angustatâ; columellâ anticè reflexâ, bipliatâ, plicâ posticâ validâ; labro, in medio, angulato.

A small, umbilicated, shining, white species, with the whorls ornamented with a rufous band, and with two plaits on the columella.

Cagayan, province of Misamis, Isle of Mindanao; twenty-five fathoms, sandy mud. *H. C.* (Mus. Cuming.)

18. *OBELISCUS FASTIGIUM* (pl. clxxi. f. 8), *A. Adams.*

*O. testâ* conico-turritâ, perforatâ, albâ, nitidâ, lævissimâ; anfractibus planis, ultimo subangulato, subventricosos; aperturâ ovali; columellâ rectâ, triplicatâ, plicis transversis; labro intus lirato.



White, polished, shining, umbilicated, with the last whorl large and rather angulated; in general appearance resembles *O. perforatus*, but the umbilicus is very narrow.

Loay, island of Bohol; sixteen fathoms, sandy mud. *H. C.* (Mus. Cuming.)

19. *OBELISCUS PERFORATUS* (pl. clxxi. f. 9), *A. Adams.*

*O. testâ conico-turritâ, latè et profundè umbilicatâ, albâ, nitidâ, lævissimâ; anfractibus planiusculis, ultimo subangulato, lineâ pallidâ rufâ transversâ, in medio, ornatis; aperturâ subquadratâ; columellâ rectâ, plicis tribus, transversis, instructâ.*

Very widely and deeply umbilicated, white, shining, ornamented with a transverse rufous band; aperture rather quadrangular; columella with three transverse plaits.

St. John's, West Indies; on the sands. *Dr. Hornbeck.* (Mus. Cuming.)

20. *OBELISCUS BRUNNEUS* (pl. clxxi. f. 35), *A. Adams.*

*O. testâ turrito-subulatâ, nitidâ, longitudinaliter substriatâ, brunneâ; anfractibus convexusculis, frequentibus, ad suturas crenulatis, anfractu ultimo rotundato; aperturâ ovali, anticè effusâ; columellâ anticè reflexâ, dilatâtâ, posticè plicâ validâ, productâ instructâ.*

A handsome red-brown species, with rather convex whorls and the sutures crenulated; the whorls are very numerous, and there is but a single plait on the columella.

Japan. *Dr. Siebold.* (Mus. Cuming.)

21. *OBELISCUS SCITULUS* (pl. clxxi. f. 23), *A. Adams.*

*O. testâ ovato-turritâ, subperforatâ, albâ; spirâ acutâ; anfractibus convexusculis, longitudinaliter et transversim striatis, fasciis rufescentibus et maculis fuscis variegatis; aperturâ ovali, anticè productâ, varice striato circa regionem umbilicalem instructâ; columellâ rectâ, plicis tribus munitâ.*

Species somewhat resembling *O. ventricosus*, but is smaller and less ventricose, and the markings are also very different.

Island of Masbate; sandy mud, ten fathoms. *H. C.* (Mus. Cuming.)

22. *OBELISCUS STYLINUS* (pl. clxxi. f. 28), *A. Adams.*

*O. testâ turritâ, subulato-cylindraceâ, apice acuto, acuminato; albâ, nitidâ, subpellucidâ, transversim striatâ; anfractibus planis, ultimo, sulco transverso angusto instructo; aperturâ subquadratâ,*



ovali, anticè evertâ, effusâ; columellâ reflexâ, anticè dilatâtâ, posticè uniplicatâ.

A singular cylindrical species, with the upper part suddenly acuminate, and with a wide, subquadrate aperture.

Gindulman, isle of Bohol; soft mud, eight fathoms. (Mus. Cuming.)

23. *OBELISCUS ATTENUATUS* (pl. clxxi. f. 22), *A. Adams*.

O. testâ aciculato-turritâ, subperforatâ, gracili, apice papilloso, albidâ, nitidâ, transversim subtilissimè striatâ; anfractibus planis, suturis profundis; aperturâ ovali; labio anticè dilatato et reflexo, posticè valdè uniplicato.

A small, whitish, slender shell, transversely finely striated, and with a single strong plait on the columella.

Baclayon, isle of Bohol; under stones, low water. *H. C.* (Mus. Cuming.)

24. *OBELISCUS HASTATUS* (pl. clxxi. f. 24), *A. Adams*.

O. testâ turrito-subulatâ, nitidâ, longitudinaliter substriatâ, carneolâ, aut fulvescenti; anfractibus planis, ad suturas concinnè crenulatis, suturis profundis, anfractu ultimo angulato, sulco transverso instructo; aperturâ ovali, anticè angustatâ, acuminatâ; columellâ rectiusculâ, triplicatâ.

A beautiful pale-yellow or flesh-coloured species, with the whorls crenated near the sutures.

St. Elena, West Columbia; sandy mud, six fathoms. *H. C.* (Mus. Cuming.)

25. *OBELISCUS CLAVULUS* (pl. clxxi. f. 33), *A. Adams*.

O. testâ turrito-cylindraccâ, subpupiformi, apice obtuso, longitudinaliter substriatâ, pallidè fulvâ, maculis rufis sparsim ornatâ; anfractibus planulatis, supra suturas sulco transverso munitis, anfractu ultimo angustato, producto; aperturâ elongatè ovali, anticè acuminatâ; columellâ plicis tribus, obliquis instructâ.

A singular pupiform species, with the apex very obtuse, and the aperture elongated.

Acapulco; on the sands. *Col. Moffatt*. (Mus. Cuming.)

26. *OBELISCUS ACLIS* (pl. clxxi. f. 30), *A. Adams*.

O. testâ aciculato-turritâ, acutâ, aurantiacâ, glabrâ, nitidâ; anfractibus planis, numerosis, suturis profundis; aperturâ obliquâ, oblongo-ovali, anticè reflexâ; columellâ plicâ validâ, in medio, instructâ; labro intus lirato.



An orange-brown, subulate, polished shell, with the fore part of the aperture everted, the columella with a single strong fold in the middle, and the outer lip internally lirate.

Loay, island of Bohol, Philippines; hard clayey mud, sixty fathoms. (Mus. Cuming.)

27. *OBELISCUS ANNULATUS* (pl. clxxi. f. 26), *A. Adams*.

O. testâ turrito-subulatâ, albidâ; anfractibus numerosis, planulatis, cingillis transversis, elevatis, subdistantibus ornatis, interstitiis longitudinaliter striatis; aperturâ oblongâ; columellâ posticè laminâ spirali instructâ; labro margine subcrenulato, intus lirato.

A small species, with the whorls ringed with elevated, transverse ridges, and with the intervals between them longitudinally striated; the fold on the columella is spiral and posterior.

Cagayan, province of Misamis, Mindanao; twenty-five fathoms, sandy mud. *H. C.* (Mus. Cuming.)

28. *OBELISCUS STRIATULUS* (pl. clxxi. f. 29), *A. Adams*.

O. testâ turrito-subulatâ, albidâ, subpellucidâ; anfractibus octo, convexiusculis, transversim striatis, suturis impressis; aperturâ oblongâ; columellâ posticè uniplicatâ; labro acuto, intus lirato.

A white, thin, semipellucid shell, with the whorls transversely striated, the sutures deep, the columella with a single plait, and the outer lip lirate internally.

Feejee Islands. (Mus. Cuming.)

GENUS PYRAMIDELLA, Lamarek.

Lingual membrane unarmed; tentacles ear-like, folded longitudinally, with the eyes sessile at their inner bases. Mantle enclosed, with a rudimentary siphonal fold. Foot small.

Operculum horny, ovate, sinuated on the inner edge.

Shell turreted, many-whorled, longitudinally ribbed; spire elevated, nucleus sinistral; aperture obovate, somewhat produced and channelled in front; columella curved, with three or four oblique plaits; outer lip simple, acute.

*Syn.* Pyramidellus, *Montfort*.

1. *PYRAMIDELLA AURIS-CATI* (pl. clxxii. f. 1, 2), *Chemnitz* (*Voluta*), *Conch. t. 11. p. 20. pl. 117. f. 1711, 1712.* *Voluta spiralis*, *Wood.* *Pyram. plicata*, *Lam. ed. Desh. vol. iv. p. 55*; *Kien. Mon. Pyram. pl. i. f. 4.*



*P. testâ ovato-oblongâ, solidâ, longitudinaliter plicatâ, albâ, punctis rufis seriatim cinctâ; plicis lævibus; interstitiis transversè striatis; ultimo anfractu spirâ brevior, turgidulo.*

Oval-elongate, solid, last whorl very large, with numerous prominent, longitudinal plaits; the interstices transversely finely striated; usually three rows of reddish-brown spots.

Island of Vanikoro. Philippines, etc. (Mus. Cuming.)

2. *PYRAMIDELLA CORRUGATA* (pl. clxxii. f. 4), *Lamarck*, Hist. An. s. vert. ed. Desh. vol. iv. p. 56; Kien. Mon. Pyram. pl. ii. f. 6.

*P. testâ elongato-turritâ, gracili, longitudinaliter plicatâ, albâ, propè suturas punctis luteis varis pictâ; ultimo anfractu spirâ multò brevior.*

Elongated, white, with small, sparse, yellow spots; plaits on the whorls, smooth, numerous, regular, with the intervals transversely striated; columella with three plaits.

Isle of France. (Mus. Lam.)

3. *PYRAMIDELLA GLANS* (pl. clxxii. f. 6, 7), *Reeve*, Pro. Zool. Soc. 1842; Conch. Syst. vol. ii. pl. 207. f. 1.

*P. testâ cylindraceo-conicâ, bicoloratâ; anfractibus longitudinaliter striatis, infernè albis, supernè olivaceo-viridibus; aperturâ rotundato-ovali.*

This is a small, obtuse species, of which the whorls are just one-half white, and the other half dark olive-green.

Philippines. (Mus. Cuming.)

4. *PYRAMIDELLA MAGNIFICA* (pl. clxxii. f. 3), *Adams et Reeve*, Zool. Voy. Samarang, Moll. p. 53. pl. 10. f. 1.

*P. testâ pyramidal-conicâ, subcylindraceâ, spiræ suturis impressis; anfractibus quatuordecim, plano-convexis, supernè canaliculatis, longitudinaliter crebriliratis, interstitiis foveolatis, anfractu ultimo ecostato, promiscuè foveolato; columellâ fortiter triplicatâ; aperturâ anticè submarginatâ; albidâ, ferrugineo-fusco tinctâ et maculatâ.*

The whorls are flattened and foveolate between the longitudinal rib-like plicæ, which are produced posteriorly into prominent nodules; the outline is more pyramidal than in *P. auris-catæ*.

Shores of Borneo, China Seas. (Mus. Taylor.)

5. *PYRAMIDELLA NODICINCTA* (pl. clxxii. f. 5), *A. Adams*.

*P. testâ pyramidal-conicâ, albâ, maculis rufis, in seriebus*



transversis dispositis, ornatâ; anfractibus circa decem, longitudinaliter plicatis, plicis posticè nodosis, nodis subacutis, prominentibus, interstitiis foveolatis, anfractu ultimo corrugato-foveolato, plicis evanidis; aperturâ oblongâ; columellâ plicis tribus instructâ, plicâ posticâ validâ.

The whorls are encircled with a series of rather acute and prominent nodules, formed by the hind portions of the longitudinal plicæ, which, in this species, are rather indistinct; the surface of the shell is pitted in a peculiar manner, and the whorls are adorned with rows of square brown spots, forming three zones on the last whorl.

*Hab.*——? (Mus. Cuming.)

6. PYRAMIDELLA PROPINQUA (pl. clxxii. f. 8), *A. Adams*.

P. testâ ovato-pyramidali; spirâ acuminatâ, submucronatâ, albidâ, luteo-fusco variegatâ; anfractibus convexiusculis, longitudinaliter plicatis, plicis prominentibus, distantibus, interstitiis lineis transversis ornatis, anfractu ultimo dorso alveolato; aperturâ semiovatâ, anticè producto, subcanaliculatâ; columellâ plicis tribus instructâ; labro anticè subdilatato.

Somewhat similar to *P. auris-catæ*, but is more subulate, and the longitudinal plicæ are more prominent; it also resembles *P. corrugata*, but that shell is represented more slender.

Reetea, Society Islands; on the reefs. (Mus. Cuming.)

7. PYRAMIDELLA MITRALIS (pl. clxxii. f. 9), *A. Adams*.

P. testâ elongato-pyramidali, albidâ, rufo-fusco variegatâ; anfractibus octo, convexiusculis, longitudinaliter costatis, costis prominentibus, subdistantibus, interstitiis transversim latis; aperturâ obliquâ, semiovatâ, anticè subcanaliculatâ; columellâ plicis tribus, plicâ posticâ, transversâ, magnâ.

A mitriform species, variegated with rufous, and with prominent, distant, longitudinal ribs, transversely striated in the interstices.

St. Estevan, North Ilocos, isle of Luzon; sand, low water.  
*H. C.* (Mus. Cuming.)

8. PYRAMIDELLA VARIEGATA (pl. clxxii. f. 10), *A. Adams*.

P. testâ elongato-pyramidali, albâ, rufo-fusco maculatâ et variegatâ; anfractibus septem, planiusculis, longitudinaliter costatis, costis parvis, subconfertis (interstitiis æquantibus), interstitiis concinnè clathratis; aperturâ semiovatâ, obliquâ, anticè subcanaliculatâ, columellâ triplicatâ; labro extus incrassato.

The longitudinal plicæ are rather close together the interstices



are clathrated, and the shell is marked with large red-brown blotches; the outer lip is rather incrassated.

Island of Masbate, Philippines; seven fathoms, sandy mud.  
*H. C.* (Mus. Cuming.)

9. *PYRAMIDELLA NITIDA* (pl. clxxii. f. 11), *A. Adams*.

*P.* testâ ovato-pyramidali, albâ, nitidâ; anfractibus convexiusculis, longitudinaliter costellatis, costellis angustis, rectis, subdistantibus, lævibus, interstitiis subcrenulatis, anfractu ultimo basi producto; aperturâ obliquâ, semiovatâ, anticè subcanaliculatâ; columellâ plicis tribus instructâ, plicâ anticâ duplicatâ.

A rather small, shining species, with narrow, straight ribs, rather wide apart, and with the interstices crenulated; the last whorl is produced at the base, and the anterior fold of the columella is double.

Philippines. (Mus. Cuming.)

10. *PYRAMIDELLA METULA* (pl. clxxii. f. 12), *A. Adams*, *Pro. Zool. Soc.* 1851.

*P.* testâ subulato-turritâ, apice obtusiusculâ, albidâ; anfractibus decem, planulatis, longitudinaliter costatis, costis confertis, æquantibus, interstitiis lineis transversis, elevatis, ornatis; aperturâ ovali, labio incrassato, in medio plicâ unicâ instructo; labro margine subincrassato.

A small, elongated species, with the intervals between the ribs cancellated.

Philippines, Gindulman, isle of Bohol; soft mud, eight fathoms. (Mus. Cuming.)

11. *PYRAMIDELLA GRACILIS* (pl. clxxii. f. 14, 15), *A. Adams*.

*P.* testâ parvâ, aciculato-turritâ, albidâ, nitidâ, lineâ fuscâ, supra suturas, ornatâ; anfractibus planis, longitudinaliter costatis, costis rectis, distantibus, interstitiis lævibus; aperturâ ovali, anticè subcanaliculatâ, labio suprâ calloso, in medio, plicâ validâ instructo.

A small, slender, nearly acicular species, somewhat resembling a *Turbonilla*, but with all the generic characters of *Pyramidella*.

Loay, isle of Bohol, Philippines; hard clayey mud, sixty fathoms. *H. C.* (Mus. Cuming.)

12. *PYRAMIDELLA SUBULATA* (pl. clxxii. f. 13), *A. Adams*.

*P.* testâ umbilicatâ, subulato-pyramidali, vertice mucronato, lævigato, pellucido, albidâ, subnitidâ; anfractibus planulatis, lon-



gitudinaliter costatis, costis lævibus, subobliquis, crassis, interstitiis lævibus, in mediis, unipunctatis; aperturâ obliquâ, semiellipticâ, anticè productâ, subcanaliculatâ et reflexâ; columellâ, in medio, plicâ validâ instructâ.

Remarkable for its subulate form, and styli-gerous spire formed of transparent, nearly equal, nuclear volutions, the first of which is placed as in *Turbonilla*.

Sorsogon, province of Albay, isle of Luzon; coarse sand, four fathoms. *H. C.* (Mus. Cuming.)

13. PYRAMIDELLA ACLIS (pl. clxxii. f. 16, 17), *A. Adams*, *Pro. Zool. Soc.* 1851, July.

*P.* testâ subulatâ, albâ, nitidâ; anfractibus octo, planiusculis, longitudinaliter plicatis, plicis æqualibus, subconfertis, interstitiis lævibus; aperturâ semiovatâ, labio subincrassato, plicâ unicâ munito; labro subdilato.

This is a slender, subulate species, somewhat resembling a *Rissoina*, and differing from *P. metula* in the interstices between the longitudinal ribs being smooth, and without elevated lines.

Philippines. (Mus. Cuming.)

#### GENUS MONOPTYGMA, J. Lea.

Tongue unarmed; proboscis retractile; tentacles subulate, with the eyes sessile at their upper bases; foot narrow, elongate.

Operculum horny, subspiral.

Shell elongated, imperforate, many-whorled, transversely striated; aperture small, entire in front; columellar lip with a single obscure winding plait; outer lip simple, acute.

*Syn.* Menestho, *Möller*; Pyramis, *Brown*; Monotygmia, *Gray*.

This genus was founded on a fossil species; it differs from *Odostomia* in being subulate, and in the columella having an oblique plait instead of a transverse tooth.

1. MONOPTYGMA STRIATA (pl. clxxii. f. 18), *Gray*.

*M.* testâ turrito-subulatâ, solidâ, olivaceâ; anfractibus planis, transversim sulcatis, sulcis profundis, distantibus; aperturâ oblongâ, intus albâ.

Subulately turreted, solid, olivaceous; whorls flat, transversely sulcate, grooves deep, wide apart; aperture oblong, white within.

This species is a very thick and strong shell, with a somewhat



convex lateral outline, and strongly transversely grooved across the flattened whorls.

Philippines. (Mus. Cuming.)

2. *MONOPTYGMA FULVA* (pl. clxxii. f. 23), *A. Adams*, Pro. Zool. Soc. 1851.

*M. testâ* turrito-subulatâ, graciliori, solidâ, fulvâ; anfractibus planis, transversim sulcatis, sulcis profundis, distantibus; aperturâ oblongâ, intus fuscâ.

Turreted, subulate, slender, solid, fulvous; whorls flat, transversely grooved, grooves deep, rather wide apart; aperture oblong, brown within.

This species is more slender than *M. striata*, and of a different colour; the transverse grooves are also much closer together, and their edges are rounded; the twist of the columella is not so distinct, and the aperture is brown internally.

Philippines. (Mus. Cuming.)

3. *MONOPTYGMA GRANULATA* (pl. clxxii. f. 19), *A. Adams*, Pro. Zool. Soc. 1851.

*M. testâ* ovato-turritâ, albâ, solidâ; anfractibus planiusculis, gradatis, longitudinaliter corrugato-plicatis, transversim sulcatis, sulcis profundis, valdè distantibus, interstitiis lævibus; aperturâ oblongâ; columellâ plicâ subproductâ.

Ovately turreted, white, solid; whorls rather flat, gradate, longitudinally corrugately plicate, transversely grooved, grooves deep, very wide apart, interstices smooth; aperture oblong; columella with the fold rather prominent.

This is a rather short and obtuse, white, solid species, very strongly grooved transversely, and with the whorls longitudinally corrugately plicated.

Philippines. (Mus. Cuming.)

4. *MONOPTYGMA LAUTA* (pl. clxxii. f. 20), *A. Adams*, Pro. Zool. Soc. 1851.

*M. testâ* turrito-subulatâ, albidâ, tenui, subpellucidâ; anfractibus planiusculis, longitudinaliter eleganter striatis, transversim sulcatis, sulcis distantibus; aperturâ oblongâ; columellâ obliquâ et curvatâ.

Subulately turreted, whitish, thin, rather pellucid; whorls flattened, longitudinally striated, transversely grooved, grooves wide apart; aperture oblong, columella oblique, curved.

A very beautifully-sculptured species, dredged from ten fathoms,



at Bolinao, Philippines, by Mr. Cuming; the outline is subulate, and the whorls are rather flattened and longitudinally striated. (Mus. Cuming.)

5. *MONOPTYGMA AMÆNA* (pl. clxxii. f. 21), *A. Adams*, Pro. Zool. Soc. 1851.

M. testâ ovato-acuminatâ, tenui, subpellucidâ, albidâ, longitudinaliter substriatâ; anfractibus convexiusculis, transversim sulcatis, sulcis valdè distantibus, interstitiis eleganter punctatis; aperturâ oblongâ, anticè dilatâtâ; columellâ rectâ.

Ovately acuminated, thin, rather pellucid, white, longitudinally somewhat striated; whorls rather convex, transversely sulcated, grooves very wide apart, interstices elegantly punctate; aperture oblong, anteriorly dilated; columella straight.

This is a most exquisite species both in form and sculpture; the whorls are rounded and punctate-striate, and the shell is nearly pellucid.

Bolinao, Philippines; ten fathoms. (Mus. Cuming.)

6. *MONOPTYGMA CASTA* (pl. clxxii. f. 22), *A. Adams*, Pro. Zool. Soc.

M. testâ ovato-turritâ, albâ, tenui, semipellucidâ; anfractibus convexiusculis, transversim sulcatis, sulcis subconfertis, interstitiis pulcherrimè striatis; aperturâ oblongâ, anticè productâ; columellâ obliquâ, subtortuosâ.

Ovately turreted, white, thin, semipellucid; whorls rather rounded, transversely grooved, grooves rather close together, interstices very beautifully striated; aperture oblong, anteriorly produced; columella oblique, somewhat tortuous.

This pure white, ovate form is from the China Seas, being collected by the writer during the voyage of H.M.S. Samarang. The whorls are grooved, with the interstices striated. (Mus. Cuming.)

7. *MONOPTYGMA SPECIOSA* (pl. clxxii. f. 24, 25), *A. Adams*, Pro. Zool. Soc. 1851.

M. testâ turritâ, subulatâ, albidâ, tenui, semipellucidâ; anfractibus octo, convexiusculis; suturâ profundâ, cingillis transversis elevatis, interstitiis concinnè cancellatis ornatâ; aperturâ oblongo-ovali, columellâ subrectâ, supernè plicâ obliquâ, subobsoletâ, instructâ.

Turreted, subulate, white, thin, semipellucid; whorls eight, rather convex; suture deep, with transverse elevated ridges, with



the interstices cancellated; aperture oblong-oval; columella rather straight, with an oblique, faint plait.

An elegant, semi-transparent species, resembling an elongated *Actæon*, with the whorls encircled with elevated cingilli, and the interstices cancellated.

Baclayon; Philippines. (Mus. Cuming.)

8. *MONOPTYGMA SPIRATA* (pl. clxxii. f. 26, 27, 28), *A. Adams*, Pro. Zool. Soc. 1851.

M. testâ turritâ, albâ, epidermide fuscâ obtectâ; anfractibus octo, planiusculis, gradatis; suturâ canaliculatâ; plicis longitudinalibus, angustis, confertis, et sulcis transversis decussatim ornatâ; aperturâ oblongâ; labio plicâ unicâ obliquâ instructo.

Turreted, white, covered with a thin brownish epidermis; whorls white, gradate, suture channelled; whorls with decussating longitudinal plicæ and transverse grooves; aperture oblong; columella with an oblique fold.

A small turreted species, covered, in the living state, with a light brown epidermis, and with the surface of the whorls regularly and beautifully decussated with raised lines.

Camaguan, Philippines. (Mus. Cuming.)

9. *MONOPTYGMA STYLINA* (pl. clxxii. f. 29, 30), *A. Adams*, Pro. Zool. Soc. 1851.

M. testâ subulatâ, in medio incrassatâ, albâ, subpellucidâ; anfractibus novem ad duodecim, planiusculis; transversim tenuiter striatâ, longitudinaliter substriatâ; aperturâ oblongâ; labio supernè plicâ obliquâ instructo; labro, in medio, subrecto.

A remarkable white, subulate species, with the middle whorls, especially those near the apex, enlarged.

Catanuan; Philippines. (Mus. Cuming.)

10. *MONOPTYGMA SUTURALIS* (pl. clxxii. f. 31, 32), *A. Adams*, Pro. Zool. Soc. 1851.

M. testâ subulato-turritâ, subumbilicatâ, albâ, nitidâ, subdiaphanâ; anfractibus septem, planis, suturâ canaliculatâ, transversim sulcatis; anfractu ultimo subsoluto, fasciis angustis, albo-articulatis, ornato; aperturâ oblongo-ovali; labio plicâ evanidâ.

A small, white species, with the last whorl nearly free, and having the suture deeply canaliculate.

Philippine Islands. (Mus. Cuming.)

11. *MONOPTYGMA CONCINNA* (pl. clxxii. f. 34), *A. Adams*.

M. testâ ovato-turritâ; spirâ productâ, obtusiusculâ, griseâ;



anfractibus sex, planiusculis, transversim sulcatis, interstitiis (sub lente) crenulatis; aperturâ oblongâ; columellâ uniplicatâ, subincrassatâ, plicâ obliquâ, subobsoletâ; labro margine crenulato, intus lirato.

Ovate, turreted, grey; spire produced, rather obtuse; whorls six, rather flattened, transversely grooved, interstices (under the lens) crenulated; aperture oblong; columella with a single, somewhat obsolete, oblique plait; outer lip internally lirate.

Moreton Bay. (Mus. Cuming.)

12. MONOPTYGMA PURA (pl. clxxii. f. 33), *A. Adams*.

M. testâ ovato-turritâ, solidiusculâ, albâ; anfractibus convexiusculis, transversim sulcatis, liris intermediis levibus, interstitiis longitudinaliter concinnè striatis; aperturâ oblongâ; columellâ plicâ subobliquâ, medio instructâ.

Ovate-turreted, rather solid, white; whorls somewhat convex, transversely grooved, the intermediate liræ smooth, the grooves longitudinally striated; aperture oblong; columella with a single median, oblique plait.

New Zealand. (Mus. Cuming.)

LIST OF FIGURES IN PLATES CLXIX. TO CLXXII.

(The Figure after each Name refers to the number of the Species.)

| PLATE CLXIX.                                   |  | Fig.                                           |
|------------------------------------------------|--|------------------------------------------------|
| EULIMA.                                        |  |                                                |
| Fig.                                           |  |                                                |
| 1. <i>E. polita</i> , <i>Linn.</i> 1.          |  | 16. <i>E. pyramidalis</i> , <i>A. Ad.</i> 11.  |
| 2. — <i>lactea</i> , <i>A. Ad.</i> 25.         |  | 17. — <i>nitida</i> , <i>Lam.</i> 28.          |
| 3, 4. — <i>major</i> , <i>Sowb.</i> 3.         |  | 18. — <i>nitidula</i> , <i>A. Ad.</i> 12.      |
| 5. — <i>Martinii</i> , <i>A. Ad.</i> 8.        |  | 19. — <i>iota</i> , <i>C. B. Ad.</i> 22.       |
| 6. — <i>distorta</i> , <i>Desh.</i> 2.         |  | 20. — <i>nitida</i> , <i>Lam.</i> 28.          |
| 7, 8. — <i>hastata</i> , <i>Sowb.</i> 4.       |  | 21. — <i>pusilla</i> , <i>Sowb.</i> 7.         |
| 9, 10. — <i>pusilla</i> , <i>Sowb.</i> 7.      |  | 22. — <i>flexuosa</i> , <i>A. Ad.</i> 13.      |
| 11, 12. — <i>subangulata</i> , <i>Sowb.</i> 6. |  | 23. — <i>teinostoma</i> , <i>A. Ad.</i> 14.    |
| 13. — <i>solidula</i> , <i>Ad. et Rve.</i> 9.  |  | 24. — <i>grandis</i> , <i>A. Ad.</i> 19.       |
| 14. — <i>tortuosa</i> , <i>Ad. et Rve.</i> 10. |  | 25. — <i>porcellana</i> , <i>A. Ad.</i> 18.    |
| 15. — <i>articulata</i> , <i>Sowb.</i> 5.      |  | 26. — <i>Cumingii</i> , <i>A. Ad.</i> 21.      |
|                                                |  | 27, 28. — <i>modicella</i> , <i>A. Ad.</i> 20. |
|                                                |  | 29, 30. — <i>acuta</i> , <i>A. Ad.</i> 17.     |



Fig.

31. *E. labiosa*, Sowb. 26.
32. — *brevis*, Sowb. 27.
33. — *cuspidata*, *A. Ad.* 16.
34. — *obesula*, *A. Ad.* 15.
35. — *vitrea*, *A. Ad.* 23.
36. — *polygyra*, *A. Ad.* 24.

## PLATE CLXX.

## NISO.

1. *N. goniosoma*, *A. Ad.* 6.
2. — *marmorata*, Sowb. 2.
3. — *brunnea*, Sowb. 5.
- 4, 5. — *candidula*, *A. Ad.* 7.
- 6, 7. — *terebellum*, *Chem.* 1.
8. — *splendidula*, Sowb. 1.
9. — *interrupta*, Sowb. 3.
10. — *imbricata*, Sowb. 8.

## LEIOSTRACA.

11. *L. acuta*, Sowb. 3.
- 12, 13. — *Metcalfei*, *A. Ad.* 1.
14. — *Mindorensis*, *A. et R.* 5.
- 15, 16. — *subulata*, *Don.* 2.
17. — *unilineata*, *Ad. et Ree.* 7.
- 18, 19. — *bivittata*, *H. et A. Ad.* 8.
- 20?–22. — *bilineata*, *Ald.* 4.
- 23, 24. — *varians*, Sowb. 6.
25. — *recta*, *C. B. Ad.* 2.

## PLATE CLXXI.

## OBELISCUS.

- 1–3. *O. dolabratus*, *Linn.* 1.
4. — *gracilis*, *Broc.* 7.
- 5, 6. — *terebellum*, *Mül.*
7. — *pusillus*, *A. Ad.* 16.
8. — *fastigium*, *A. Ad.* 18.
9. — *perforatus*, *A. Ad.* 19.

Fig.

- 10, 11. *O. cinctus*, *Reeve.* 6.
12. — *monilis*, *A. Ad.* 5.
13. — *ventricosus*, *Gmel.* 4.
14. — *punctatus*, *Chem.* 3.
15. — *ventricosus*, *Gmel.* 4.
16. — *tessellatus*, *A. Ad.* 12.
17. — *turritus*, *A. Ad.* 9.
18. — *terebelloides*, *A. Ad.* 11.
19. — *elegans*, *A. Ad.* 14.
20. — *pulchellus*, *A. Ad.* 13.
21. — *aciculatus*, *A. Ad.* 15.
22. — *attenuatus*, *A. Ad.* 23.
23. — *scitulus*, *A. Ad.* 21.
24. — *hastatus*, *A. Ad.* 24.
25. — *balteatus*, *A. Ad.* 17.
26. — *annulatus*, *A. Ad.* 27.
27. — *punctatus*, *Chem.* 3.
28. — *stylinus*, *A. Ad.* 22.
29. — *striatulus*, *A. Ad.* 28.
30. — *aclis*, *A. Ad.* 26.
- 31, 32. — *teres*, *A. Ad.* 10.
33. — *clavulus*, *A. Ad.* 25.
34. — *sulcatus*, *A. Ad.* 8.
35. — *brunneus*, *A. Ad.* 20.
36. — *aciculatus*, *A. Ad.* 15.

## PLATE CLXXII.

## PYRAMIDELLA.

- 1, 2. *P. auris-cati*, *Chem.* 1.
3. — *magnifica*, *Ad. et Ree.* 4.
4. — *corrugata*, *Lam.* 2.
5. — *nodicincta*, *A. Ad.* 5.
- 6, 7. — *glans*, *Reeve.* 3.
8. — *propinqua*, *A. Ad.* 6.
9. — *mitralis*, *A. Ad.* 7.
10. — *variegata*, *A. Ad.* 8.
11. — *nitida*, *A. Ad.* 9.



| Fig.        |                                       | Fig.    |                                        |
|-------------|---------------------------------------|---------|----------------------------------------|
| 12.         | <i>P. metula</i> , <i>A. Ad.</i> 10.  | 21.     | <i>M. amœna</i> , <i>A. Ad.</i> 5.     |
| 13.         | — <i>subulata</i> , <i>A. Ad.</i> 12. | 22.     | — <i>casta</i> , <i>A. Ad.</i> 6.      |
| 14, 15.     | — <i>gracilis</i> , <i>A. Ad.</i> 11. | 23.     | — <i>fulva</i> , <i>A. Ad.</i> 2.      |
| 16, 17.     | — <i>aclis</i> , <i>A. Ad.</i> 13.    | 24, 25. | — <i>speciosa</i> , <i>A. Ad.</i> 7.   |
| MONOPTYGMA. |                                       | 26–28.  | — <i>spirata</i> , <i>A. Ad.</i> 8.    |
| 18.         | <i>M. striata</i> , <i>Gray</i> , 1.  | 29, 30. | — <i>stylina</i> , <i>A. Ad.</i> 9.    |
| 19.         | — <i>granulosa</i> , <i>A. Ad.</i> 3. | 31, 32. | — <i>suturalis</i> , <i>A. Ad.</i> 10. |
| 20.         | — <i>lauta</i> , <i>A. Ad.</i> 4.     | 33.     | — <i>pura</i> , <i>A. Ad.</i> 12.      |
|             |                                       | 34.     | — <i>concinna</i> , <i>A. Ad.</i> 11.  |

ALPHABETICAL LIST OF SPECIES OF THE GENERA  
EULIMA, NISO, LEIOSTRACA, OBELISCUS, PYRAMI-  
DELLA, AND MONOPTYGMA.

- aciculatus*, *A. Adams*, Obl. 15. pl. 171. f. 21.  
*aclis*, *A. Adams*, Obl. 26. pl. 171. f. 30.  
*aclis*, *A. Adams*, Pyr. 13. pl. 172. f. 16, 17.  
*acuta*, *A. Adams*, Eul. 17. pl. 169. f. 29, 30.  
*acuta*, *Sowb.*, Lstr. 3. pl. 170. f. 25.  
*albus*, Eul. *polita*, 1.  
*amœna*, *A. Adams*, Mon. 5. pl. 172. f. 21.  
*Anglica*, Eul. *polita*, 1.  
*annulatus*, *A. Adams*, Obl. 27. pl. 171. f. 26.  
*articulata*, *Sowb.*, Eul. 5. pl. 169. f. 15.  
*attenuatus*, *A. Adams*, Obl. 23. pl. 171. f. 22.  
*auris-cati*, *Chem.*, Pyr. 1. pl. 172. f. 1, 2.  
*balteatus*, *A. Adams*, Obl. 17. pl. 171. f. 25.  
*bilineata*, *Alder*, Lstr. 4. pl. 170. f. 20? 21, 22.  
*bivittata*, *H. et A. Adams*, Lstr. 8. pl. 170. f. 18, 19.  
*Boscii*, Eul. *polita*, 1.  
*brevis*, *Sowb.*, Eul. 27. pl. 169. f. 32.



- brunnea, *Sowb.*, Niso 5. pl. 170. f. 3.  
 brunneus, *A. Adams*, Obl. 20. pl. 171. f. 35.  
*Cambessedesii*, Lstr. subulata, 2.  
 candidula, *A. Adams*, Niso 7. pl. 170. f. 4, 5.  
 casta, *A. Adams*, Mon. 6. pl. 172. f. 22.  
 clavulus, *A. Adams*, Obl. 25. pl. 171. f. 33.  
 cinctus, *Reeve*, Obl. 6. pl. 171. f. 10, 11.  
 concinna, *A. Adams*, Mon. 11. pl. 172. f. 34.  
 corrugata, *Lamk.*, Pyr. 2. pl. 172. f. 4.  
 Cumingii, *A. Adams*, Eul. 21. pl. 169. f. 26.  
 cuspidata, *A. Adams*, Eul. 16. pl. 169. f. 33.  
 distorta, *Desh.*, Eul. 2. pl. 169. f. 6.  
 dolabratus, *Linn.*, Obl. 1. pl. 171. f. 1, 2, 3.  
*Donovani*, Lstr. subulata, 2.  
 elegans, *A. Adams*, Obl. 14. pl. 171. f. 19.  
 fastigium, *A. Adams*, Obl. 18. pl. 171. f. 8.  
*flavocincta*, Lstr. subulata, 2.  
 flexuosa, *A. Adams*, Eul. 13. pl. 169. f. 22.  
 fulva, *A. Adams*, Mon. 2. pl. 172. f. 23.  
 glans, *Reeve*, Pyr. 3. pl. 172. f. 6, 7.  
*glaber*, Lstr. subulata, 2.  
 goniostoma, *A. Adams*, Niso 6. pl. 170. f. 1.  
 gracilis, *Brocchi*, Obl. 7. pl. 171. f. 4.  
 gracilis, *A. Adams*, Pyr. 11. pl. 172. f. 14, 15.  
 grandis, *A. Adams*, Eul. 19. pl. 169. f. 24.  
 granulata, *A. Adams*, Mon. 3. pl. 172. f. 19.  
*guttata*, Obl. punctatus, 3.  
 hastata, *Sowb.*, Eul. 4. pl. 169. f. 7, 8.  
 hastatus, *A. Adams*, Obl. 24. pl. 171. f. 24.  
 imbricata, *Sowb.*, Niso 8. pl. 170. f. 10.  
 interrupta, *Sowb.*, Niso 3. pl. 170. f. 9.  
 iota, *C. B. Adams*, Eul. 22. pl. 169. f. 19.  
*Jamaicensis*, Eul. pusilla, 7.  
 labiosa, *Sowb.*, Eul. 26. pl. 169. f. 31.  
 lactea, *A. Adams*, Eul. 25. pl. 169. f. 2.  
 lauta, *A. Adams*, Mon. 4. pl. 172. f. 20.  
*lineata*, Lstr. subulata, 2.  
*maculosa*, Obl. punctata, 3.



- major, *Sowb.*, Eul. 3. pl. 169. f. 3, 4.  
 marmorata, *Sowb.*, Niso 2. pl. 170. f. 2.  
 Martinii, *A. Adams*, Eul. 8. pl. 169. f. 5.  
 magnifica, *Adams et Reeve*, Pyr. 4. pl. 172. f. 3.  
 Metcalfei, *A. Adams*, Lstr. 1. pl. 170. f. 12, 13.  
 metula, *A. Adams*, Pyr. 10. pl. 172. f. 12.  
 Mindorensis, *Adams et Reeve*, Lstr. 5. pl. 170. f. 14.  
 mitralis, *A. Adams*, Pyr. 7. pl. 172. f. 9.  
 modicella, *A. Adams*, Eul. 20. pl. 169. f. 27, 28.  
 monilis, *A. Adams*, Obl. 5. pl. 171. f. 12.  
 nitida, *Lamk.*, Eul. 28. pl. 169. f. 17, 20.  
 nitida, *A. Adams*, Pyr. 9. pl. 172. f. 11.  
 nitidula, *A. Adams*, Eul. 12. pl. 169. f. 18.  
 nodicincta, *A. Adams*, Pyr. 5. pl. 172. f. 5.  
 obesula, *A. Adams*, Eul. 15. pl. 169. f. 34.  
 perforatus, *A. Adams*, Obl. 19. pl. 171. f. 9.  
 polita, *Linn.*, Eul. 1. pl. 169. f. 1.  
*plicata*, Pyr. auris-cati, 1.  
 polygyra, *A. Adams*, Eul. 24. pl. 169. f. 36.  
 porcellana, *A. Adams*, Eul. 18. pl. 169. f. 25.  
 propinqua, *A. Adams*, Pyr. 6. pl. 172. f. 8.  
 pulchellus, *A. Adams*, Obl. 13. pl. 171. f. 20.  
 punctatus, *Chenn.*, Obl. 3. pl. 171. f. 14, 27.  
 pura, *A. Adams*, Mon. 12. pl. 172. f. 33.  
 pusilla, *Sowb.*, Eul. 7. pl. 169. f. 9, 10, 21.  
 pusillus, *A. Adams*, Obl. 16. pl. 171. f. 7.  
 pyramidalis, *A. Adams*, Eul. 11. pl. 169. f. 16.  
 recta, *C. B. Adams*, Lstr. 9. pl. 170. f. 25.  
 scitulus, *A. Adams*, Obl. 21. pl. 171. f. 23.  
 solidula, *Adams et Reeve*, Eul. 9. pl. 159. f. 13.  
 speciosa, *A. Adams*, Mon. 7. pl. 172. f. 24, 25.  
*spiralis*, Pyr. auris-cati, 1.  
 spirata, *A. Adams*, Mon. 8. pl. 172. f. 26, 27, 28.  
 splendidula, *Sowb.*, Niso 4. pl. 170. f. 8.  
 striata, *Gray*, Mon. 1. pl. 172. f. 18.  
*strombiformis*, Eul. polita, 1.  
 striatalus, *A. Adams*, Obl. 28. pl. 171. f. 29.  
*strombiformis*, Lstr. subulata, 2.

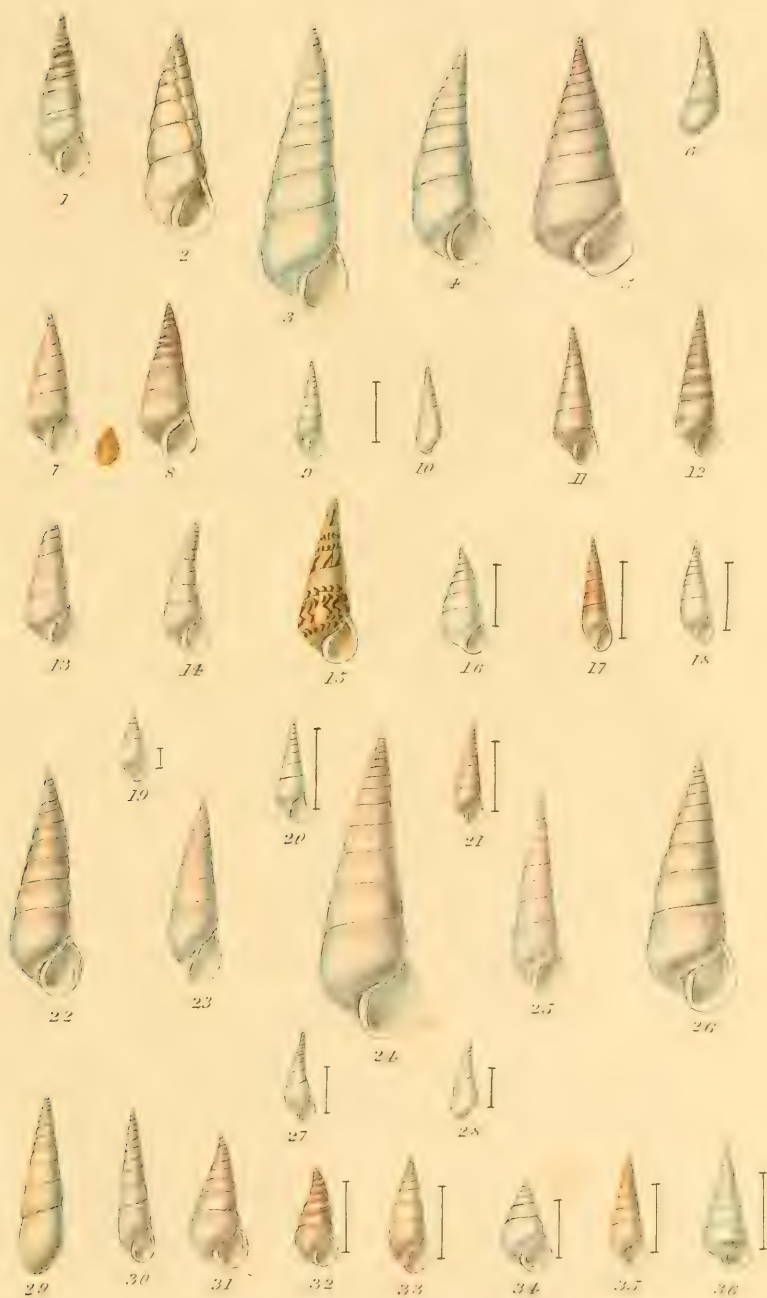


- stylina, *A. Adams*, Mon. 9. pl. 172. f. 29, 30.  
 stylinus, *A. Adams*, Obl. 22. pl. 171. f. 28.  
 subangulata, *Sowb.*, Eul. 6. pl. 169. f. 11, 12.  
 subulata, *Donov.*, Lstr. 2. pl. 17. f. 15, 16.  
 subulata, *A. Adams*, Pyr. 12. pl. 172. f. 6.  
 sulcatus, *A. Adams*, Obl. 8. pl. 171. f. 34.  
 suturalis, *A. Adams*, Mon. 10. pl. 172. f. 31, 32.  
 teinostoma, *A. Adams*, Eul. 14. pl. 169. f. 23.  
*terebellata*, Niso terebellum, 1.  
 terebellum, *Chemn.*, Niso 1. pl. 170. f. 6, 7.  
 terebellum, *Müll.*, Obl. 2. pl. 171. f. 5, 6.  
 terebelloides, *A. Adams*, Obl. 11. pl. 171. f. 18.  
 teres, *A. Adams*, Obl. 10. pl. 171. f. 31, 32.  
 tessellatus, *A. Adams*, Obl. 12. pl. 171. f. 16.  
 tortuosa, *Adams et Reeve*, Eul. 10. pl. 169. f. 14.  
*trifasciatus*, Lstr. subulata, 2.  
 turritus, *A. Adams*, Obl. 9. pl. 171. f. 17.  
 unilineata, *Adams et Reeve*, Lstr. 7. pl. 170. f. 17.  
 varians, *Sowb.*, Lstr. 6. pl. 170. f. 23, 24.  
 variegata, *A. Adams*, Pyr. 8. pl. 172. f. 10.  
 ventricosus, *Guerin*, Obl. 4. pl. 171. f. 13, 15.  
 vitrea, *A. Adams*, Eul. 23. pl. 169. f. 35.















N I S S O .



L E I O S T R A C A .









OBELISCUS.

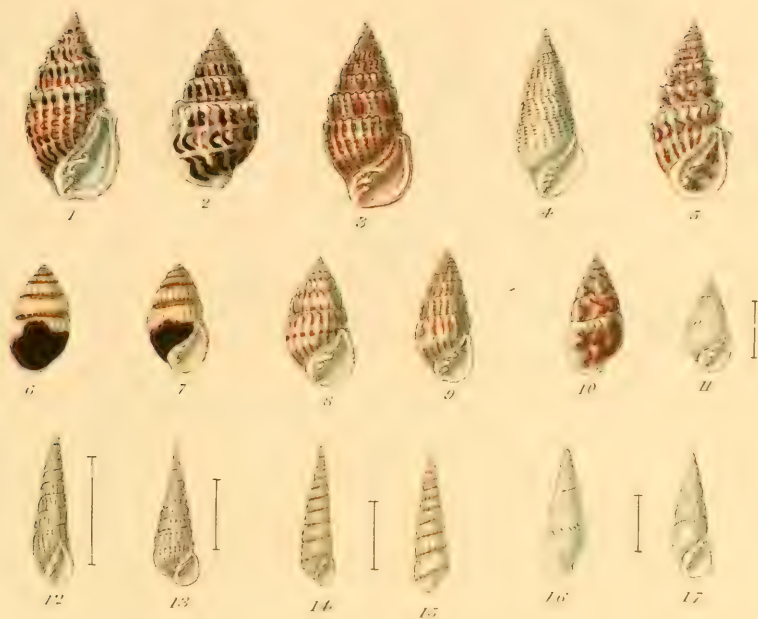




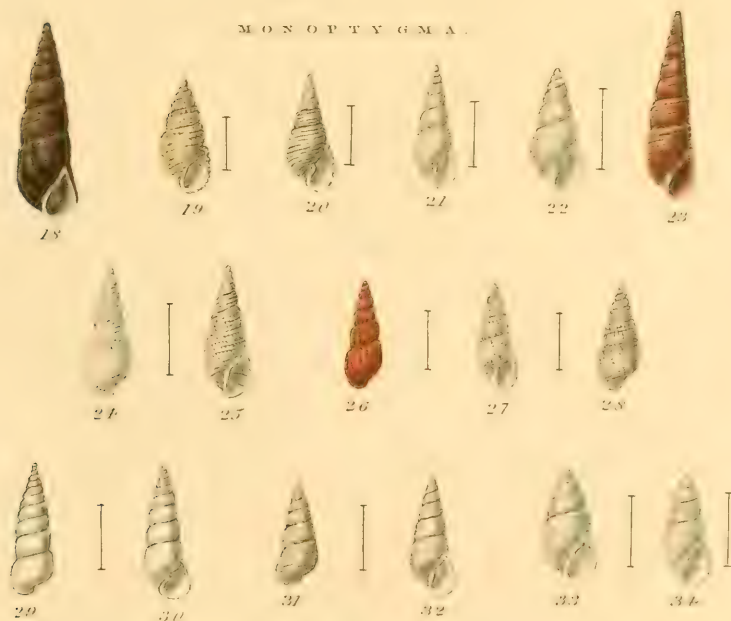




PYRAMIDELLA.



MONOPTYGMATA.









MONOGRAPH  
OF  
STOMATELLINÆ,

A SUB-FAMILY OF TROCHIDÆ.

By ARTHUR ADAMS, F.L.S., SURGEON R.N., ETC.

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STOMATELLINÆ.

Head broad, proboscidiiform; tentacles subulate, with a fimbriated lobe at their inner bases; eyes on peduncles at the outer bases of the tentacles; mantle with the front edge entire; muscle of attachment crescentic, open in front; foot with a fringed, lateral membrane.

Operculum none, or rudimentary.

Shell more or less ear-shaped, imperforate; aperture very wide, pearly within, and with a crescentic muscular impression, interrupted in the region of the head.

The shells described in this monograph constitute a very natural section of the *Trochidæ*, which family may be divided into three sub-families, or *Turbininæ*, in which the operculum is shelly; *Trochina*, where it is horny; and *Stomatellinæ*, in which it is absent or rudimentary. The *Stomatellinæ* differ from the *Halio-tidæ*, with which they are sometimes confounded, in the mantle not being fissured anteriorly, in the muscle of attachment being in the form of a horse-shoe round the sides and hind part of the mantle, instead of being ovate and central, and in the shell not being furnished with a series of holes.

In their habits these Molluscs are littoral, living on coral-reefs and among stones between tide-marks; the finest species prefer coral reefs exposed to the action of the waves. Some of the genera, as *Gena* and *Stomatia*, have considerable locomotive powers, and glide (especially *Gena*) with some degree of celerity.



The latter genus and *Stomatia* possess the faculty, common to some other kinds of Mollusca, of spontaneously detaching a considerable portion of the hind part of the foot, when disturbed or irritated.

Very possibly the genus *Anatomus* of Montfort, or the *Scissurella* of D'Orbigny, although the operculum is said to be present, may likewise belong to this sub-family of *Trochidæ*.

#### GENUS GENA, Gray.

Animal subspiral, oval, depressed, too large to retract entirely within the shell; frontal lobes plumose; foot very large, thick, fleshy, tubercular, posteriorly greatly produced, lateral membrane not fimbriated, more or less extended, and covering the sides of the shell.

Operculum none.

Shell subspiral, oblong, ear-shaped, depressed, smooth or striated; spire flattened, nearly obsolete; aperture large, pearly within.

1. *GENA LUTEA* (pl. clxxiii. f. 4, 5), *Linnaeus* (*Patella*), Syst. Nat. ed. 10. p. 783. *Stomatella auricula*, *Lam.* Encycl. pl. 450. f. 1 *a b*.

*G. testâ* haliotoideâ, ovatâ, oblongâ, dorso convexâ, lævigatâ, luteo-roseâ, fusco-lineatâ; spirâ laterali, subprominulâ; labro sinu arcuato.

Shell haliotoid, ovate-oblong, convex on the back, smooth, yellowish-rosy, with fuscous lines; spire lateral, rather prominent; outer lip arcuated, sinuous.

Eastern Seas, Celebes, etc. (Mus. Cuming.)

2. *GENA VARIA* (pl. clxxiii. f. 6, 7, 8), *A. Adams*, Pro. Zool. Soc. Feb. 1850.

*G. testâ* haliotoideâ, ovato-oblongâ, politâ, dorso æqualiter convexâ, latere sinistro striatâ, luteo, rubro alboque variegatâ; spirâ prominulâ, erectâ, acuminatâ.

A pretty little species, usually confounded with *G. lutea*, but easily distinguished when its profile is examined; the dorsum is equally convex and polished, and the spire is rather prominent, erect, and acuminated.

Calapan, island of Mindoro; Acapulco; on the sands. *Col. Moffatt*. (Mus. Cuming.)



3. *GENA PLANULATA* (pl. clxxiii. f. 1, 2, 3), *Lamarck* (Stomatella), Hist. ed. Desh. vol. iv. p. 17.

G. testâ haliotoideâ, oblongâ, planulatâ, dorso convexo-depressâ, tenuiter striatâ, virente, fusco-maculatâ; spirâ minimâ, ad latus decumbente.

Shell haliotoid, oblong, flattened, convexly depressed on the back, finely striated, greenish, spotted with fuscous; spire small, laterally inclined.

Island of Camaguin; under smooth stones, low water. (Mus. Cuming.)

4. *GENA NIGRA* (pl. clxxiii. f. 14, 15, 16), *Quoy et Gaimard* (Stomatella), Voy. de l'Astrol. tab. 17. f. 154, 155.

G. testâ elongato-ovali, convexâ, lævi, nigrâ, margine dextro longitrorsum striatâ, intus violaceo fulgente; spirâ minimâ, subterminali; aperturâ ovali-integra.

Shell elongately oval, convex, smooth, black, with the right margin longitudinally striated, within brilliant violet; spire very small, subterminal; aperture ovate, entire.

Tonga Tabou, Sandwich Islands. (Mus. Cuming.)

5. *GENA PLUMBEA* (pl. clxxiii. f. 13), *A. Adams*, Pro. Zool. Soc. Feb. 1850.

G. testâ haliotoideâ, ovato-oblongâ, dorso ad latus dextrum gibbosâ, ad sinistrum planulatâ, plumbeâ, decussatim totâ striatâ; spirâ prominulâ; anfractibus rotundatis, ultimo ad suturam gibboso; aperturâ posticè subcanaliculatâ; labro, in medio, flexuoso.

Decussately striated, lead-coloured, the right side of the back gibbous, the left flattened; outer lip flexuous in the middle.

Java. (Mus. Cuming.)

6. *GENA STRIATULA* (pl. clxxiii. f. 9, 10), *A. Adams*, Pro. Zool. Soc. Feb. 1850.

G. testâ haliotoideâ, ovato-oblongâ, dorso planiusculâ, totâ striatâ, striis profundis, subdistantibus, rubrâ, flaveolo aurantiaco fuscoque variè pictâ; spirâ prominulâ, nonnunquam subdistortâ; labro valdè flexuoso.

Flat on the back, entirely striated, the striae deep and rather wide apart; red, varied with orange, yellow, and brown; spire prominent, sometimes rather contorted; outer lip strongly flexuous.

Calapan, island of Mindoro; on small stones, nine fathoms. Australia. *Lieut. Preston*. (Mus. Cuming.)



7. *GENA STRIGOSA* (pl. clxxiii. f. 11, 12), *A. Adams*, *Pro. Zool. Soc. Feb. 1850.*

G. testâ haliotoideâ, ovato-oblongâ, dorso subplanatâ, totâ striatâ, striis irregularibus, subconfertis, olivaceâ, lilaceo alboque variâ, fasciis subfuscis, pallidis alternantibus, longitudinaliter ornatâ; labro haud sinuoso.

Dorsum flat; surface entirely striated, olivaceous-lilac, variegated with white, and with alternating pale and fuscous stripes.

*Hab.* — ? (Mus. Cuming.)

8. *GENA NEBULOSA* (pl. clxxiii. f. 23), *A. Adams*, *Pro. Zool. Soc. Feb. 1850.*

G. testâ haliotoideâ, ovato-oblongâ, dorso totâ striatâ, albâ, rufo-fusco nebulosâ; spirâ prominulâ, anfractibus angulatis; aperturâ elongatâ, ovali; columellâ callo crasso rimam umbilicalem obtigente.

Striated, white, clouded with reddish-brown; spire prominent; whorls angulated; columella with a thick callus covering the umbilical fissure.

Australia. (Mus. Cuming.)

9. *GENA LINTRICULA* (pl. clxxiii. f. 22), *A. Adams*, *Pro. Zool. Soc. Feb. 1850.*

G. testâ haliotoideâ, oblongâ, dorso convexâ, totâ tenuissimè striatâ, tenui, fragili, carneolâ, rubro maculatâ; spirâ subterminali, minimâ, ad latus decumbente; aperturâ apertâ, valdè elongatâ.

Shell thin, brittle, striated, flesh-coloured, spotted with red; apex subterminal, small, laterally inclined; aperture greatly elongated.

Calapan, island of Mindoro; on smooth stones, nine fathoms. (Mus. Cuming.)

10. *GENA LINEATA* (pl. clxxiii. f. 26, 27), *A. Adams*, *Pro. Zool. Soc. Feb. 1850.*

G. testâ subturbinaceâ, solidâ, lævi, politâ, convexâ, ovali, carneolâ, lineis rubris longitudinalibus ornatâ; spirâ prominulâ, anfractibus rotundatis; aperturâ subrotundatâ; columellâ planulatâ, callosâ; labro simplici.

Solid, polished, convex, pink, with longitudinal red lines; spire prominent, whorls rounded; aperture subcircular; columella callous, rather flattened.

*Hab.* — ? (Mus. Cuming.)



11. *GENA CONCINNA* (pl. clxxiii. f. 20, 21), *Gould* (*Stomatella*), Exp. Shells.

*G. testâ* tenui, auriformi, subventricosâ, carneâ, lineis rubris transversis, obliquis (sæpe interruptis) ornatâ; spirâ obtusâ, brevissimâ; anfractu ultimo inflato; aperturâ amplâ, transversim ovatâ; columellâ acutâ, perobliquâ.

A small, rather thin species, prettily painted with oblique, transverse red lines, which are often interrupted.

Sandy Island. (Mus. Cuming.)

12. *GENA PULCHELLA* (pl. clxxiii. f. 17, 18, 12), *A. Adams*, Pro. Zool. Soc. Feb. 1850.

*G. testâ* convexo-depressâ, ovali, albâ, rufo maculatâ, dorso convexâ, totâ striatâ; spirâ prominulâ, anfractibus rotundatis; aperturâ magnâ, ovali, intus margaritaceâ, iridescente.

Shell white, spotted with red, convex and striated; spire prominent, with rounded whorls; aperture iridescent internally.

*Hab.* — ? (Mus. Metcalfe.)

13. *GENA ASPERULATA* (pl. clxxiii. f. 28, 29), *A. Adams*, Pro. Zool. Soc. Feb. 1850.

*G. testâ* halioideâ, dorso convexâ; rufo-fuscâ, cingulâ albâ, latâ, longitudinali, ornatâ; lineis elevatis, subconfertis, striisque longitudinalibus, obliquis, decussatâ; spirâ posticâ subprominulâ, albâ; aperturâ elongatâ, ovali.

Convex, rufo-fuscos, with a wide, white zone, and with decussated, elevated, close-set striæ; spire rather prominent, postical, white.

*Hab.* — ? (Mus. Metcalfe.)

14. *GENA ORNATA* (pl. clxxiii. f. 24, 25), *A. Adams*, Pro. Zool. Soc. Feb. 1850.

*G. testâ* subturbinaceâ, ovali, lævi, politâ, dorso convexâ, fusco-rubrâ, lineis nigris, albo-articulatis, longitudinalibus ornatâ; spirâ prominulâ, roseâ; aperturâ ovali; columellâ arcuatâ, simplici; labro reflexo, posticè subflexuoso.

Smooth, polished, convex, reddish-brown, with longitudinal black lines, articulated with white; spire rather prominent; outer lip reflexed posteriorly, subflexuous.

Island of Ticao, Philippines; on the reefs. (Mus. Cuming.)



## GENUS BRODERIPIA, Gray.

Animal unknown.

Operculum — ?

Shell ancyliiform, non-spiral, oblong-ovate, flattened; apex posterior, involute; aperture very large, ovate, perlaceous internally.

*Syn.* Scutella (pars), *Broderip*.

1. *BRODERIPIA IRIDESCENS* (pl. clxxiii. f. 32, 33), *Broderip* (Scutella), Pro. Zool. Soc. June, 1834.

B. testâ oblongo-ovatâ, complanatâ, minutissimè substriatâ, albo et roseo guttatim tessellatâ; intûs iridescente, margine interno albo, roseo maculato.

This species is the most depressed and fragile of the three, and is very prettily tessellated with white and pink.

Grimwood's Island, Pacific Ocean. (Mus. Cuming.)

2. *BRODERIPIA ROSEA* (pl. clxxiii. f. 34, 35), *Broderip* (Scutella), Pro. Zool. Soc. June, 1834.

B. testâ subconicâ, striatâ, albâ, lineis flammulisque roseis ornatâ; intûs nitente, interdum subiridescente.

This species is of a more conical form than the others, and the interior of the aperture is not so vividly iridescent.

Grimwood's Island, Pacific Ocean. (Mus. Cuming.)

3. *BRODERIPIA CUMINGII* (pl. clxxiii. f. 30, 31), *A. Adams*, Pro. Zool. Soc. Feb. 1850.

B. testâ ovatâ, depresso-convexâ, subpellucidâ, pallidâ, radiis rubris pictâ, concentricè corrugato-striatâ, striis granulosis, vertice postico excentrico-submarginali; aperturâ patulâ, intus margaritaceâ, margine albo limbo maculis rufis picto; margine columellari acutè angulato, prominente, posticè subrecto.

Granulated on the upper surface; the columellar margin is also prominent and angulated.

Capul, Philippines. (Mus. Cuming.)

## GENUS STOMATELLA, Lamarck.

Animal spiral, retractile within the shell; frontal lobes triangular, with the front edge fringed; foot operculigerous, small, flat,



not fleshy and tubercular, or produced posteriorly; lateral membrane very wide, the circumference regularly fimbriated.

Operculum orbicular, thin, horny, multispiral.

Shell spiral, suborbicular, depressed, transversely ribbed or sulciferous; spire more or less elevated, whorls rounded; aperture large, wider than long, pearly within.

Some of the species approach very nearly in character the genus *Euchelus* of Philippi, in the sub-family *Trochinea*. Until the animals of all the species are known, they must of necessity be grouped artificially by a consideration of their shells, which, as a general rule, are transversely ribbed or grooved. The presence of an operculum is also a useful guide in distinguishing the genera, being already known in *S. cancellata*, *S. sulcifera*, and *S. maculata*. The species of *Euchelus* may be known from the shells of *Stomatella* in the outer lip being double at the margin, and in the inner lip being furnished with a tooth.

[The Author, having examined, in company with the Editor, all the species, with a view to separate, by some definite rule, the *Stomatella* from the *Stomatia*, could find no character in the shell so suitable for that purpose as the wrinkling of the last whorl at the suture in *Stomatia*. All the *Stomatella*, known as such by the presence of an operculum or a retractile animal, are without the wrinkling, while the species known as *Stomatia* have it. We have therefore adopted this as a (perhaps artificial) sign in arranging with either genus the species whose animals are unknown.]

1. STOMATELLA IMBRICATA (pl. clxxiv. f. 1), *Lamarck*, *Encycl.* pl. 450, f. 2 *a b*; *Hist. ed. Desh.* vol. iv. p. 16.

S. testâ suborbiculari, convexo-depressâ, scabriusculâ, griseâ; sulcis transversis, confertis, imbricato-squamosis; spirâ subprominulâ.

Shell suborbicular, convexo-depressed, rugose, griseous, with transverse, imbricato-squamous, close-set grooves; spire rather prominent.

Torres Straits. *Jukes*. (Mus. Cuming.)

2. STOMATELLA SULCIFERA (pl. clxxiv. f. 3), *Lamarck*, *Hist. ed. Desh.* vol. ix. p. 16.

S. testâ suborbiculatâ, convexâ, tenui, transversim sulcatâ, longitudinaliter tenuissimè striatâ, griseo-rubente, sulcis scabriusculis; spirâ prominulâ.

Shell suborbiculate, convex, thin, transversely sulcate. longitu-



dinally very finely striated, greyish-red, sulci rugose; spire slightly prominent.

Philippines; Catbalonga, island of Samaar, under stones; island of Ticao, on the reefs, low water. (Mus. Cuming.)

3. *STOMATELLA CUMINGII* (pl. clxxv. f. 38), *A. Adams*.

S. testâ auriformi, imperforatâ; spirâ depressâ; albidâ, lutescenti, candescenti, transversim spiraliter costatâ, costis elevatis, subæqualibus, asperis, rufo-fusco articulatis, interstitiis lamellis subimbricatis, tenuibus, longitudinalibus ornatis; aperturâ patulâ, intus sulcosâ; labio sub-reflexo.

This is a large and elegant species, with a peculiar yellowish glistening tinge in the intervals between the spiral rugose ribs; the aperture is very transverse, and the inner lip is reflexed on the columella.

*Hab.* — ? (Mus. Cuming.)

4. *STOMATELLA ARTICULATA* (pl. clxxiv. f. 2), *A. Adams*, Pro. Zool. Soc. Feb. 1850.

S. testâ suborbiculari, imperforatâ, convexâ, tenui, griseâ, costulis transversis nigro-articulatis, interstitiis lineis longitudinalibus, elevatis ornatâ; spirâ prominulâ, anfractibus rotundatis; aperturâ oblongo-ovali, longiore quam latiore.

Shell suborbicular, imperforate, convex, thin, greyish, with transverse ribs articulated with black, the interstices with elevated longitudinal lines; spire rather prominent, whorls rounded; aperture oblong-oval, longer than wide.

Australia; Lord Hood's Island, on the pearl oyster. *H. C.* (Mus. Cuming.)

5. *STOMATELLA MACULATA* (pl. clxxv. f. 32, 33, 34), *Quoy et Gaimard*, Voy. de l'Astrol. t. iii. p. 315. pl. 66 bis. f. 13-16.

S. testâ oblongo-orbiculatâ, convexâ, longistrorsum transversimque tenuissimè striatâ, flavicante, fusco vel subrubro maculatâ, intus albâ; spirâ prominenti.

Shell oblong-orbicular, convex, longitudinally and transversely very finely striated, yellowish, spotted with reddish-brown, white internally; spire prominent.

Island of Vanikoro; Catanuan, province of Tayabas, island of Luzon; under stones. (Mus. Cuming.)

6. *STOMATELLA MONILIFERA* (pl. clxxiv. f. 21), *A. Adams*, Pro. Zool. Soc. Feb. 1850.



*S. testâ suborbiculari, convexo-depressâ, imperforatâ, albidâ, rufo-punctatâ, costellis moniliformibus, confertis, transversis ornatâ; aperturâ obliquâ, subcirculari.*

Shell suborbicular, convexly depressed, imperforate, whitish, spotted with rufous, and ornamented with transverse, close-set, granular ribs; aperture oblique, subcircular.

*Hab.* — ? (Mus. Metcalfe.)

7. *STOMATELLA NOTATA* (pl. clxxiv. f. 18, 19, 20, 21), *A. Adams* (Stomatia), Pro. Zool. Soc. Feb. 1850.

*S. testâ suborbiculari, depressâ, pallide roseâ, maculis purpureis valdè distinctis ornatâ, transversim carinatâ, carinis acutis, prominentibus, subdistantioribus, longitudinaliter valdè obliquè striatâ; spirâ subprominulâ; anfractibus supremis carinatis, apice acuto; aperturâ subcirculari, intus margaritaceâ et transversim sulcatâ.*

A beautiful species, of a delicate rose tint, ornamented with very distinct purple spots.

Philippines. (Mus. Cuming.)

8. *STOMATELLA SANGUINEA* (pl. clxxiv. f. 30), *A. Adams*, Pro. Zool. Soc. Feb. 1850.

*S. testâ orbiculatâ, depressâ; spirâ prominulâ, acutâ, coccineâ, transversim tenuissimè sulcatâ, longitudinaliter obliquè striatâ, carinulis transversis, subdistantibus, nodulosis ornatâ; aperturâ ovali, obliquâ; columellâ subcallosâ, areâ umbilicali albâ, intus margaritaceâ, sulcosâ.*

This species is of a beautiful red colour, orbicular, depressed, transversely sulcate, and with nodulous, transverse keels, rather wide apart; the columella is somewhat callous, and there is a white area round the umbilical region.

Island of Ticao; under stones, low water. (Mus. Cuming.)

9. *STOMATELLA SPECIOSA* (pl. clxxiv. f. 29), *A. Adams*, Pro. Zool. Soc. Feb. 1850.

*S. testâ orbiculato-conicâ, albâ, sanguineo-maculatâ, transversim carinatâ, longitudinaliter valdè striatâ, carinis obtusis, prominentibus, carinulis intermediis instructis; spirâ prominulâ, anfractibus tricarinatis; aperturâ ovali, intus margaritaceâ.*

Orbiculately conical, white, spotted with blood-red, transversely keeled, the keels with other smaller keels between them; the whorls of the spire tri-carinate.

Grimwood's Island. (Mus. Cuming.)



10. STOMATELLA CANDIDA (pl. clxxiv. f. 22), *A. Adams* (Stomatia), Pro. Zool. Soc. Feb. 1850.

S. testâ suborbiculatâ, depressâ, candidâ, transversim totâ carinatâ, carinulis parvis, confertis, permultis, elevatiusculis, subnodulosis, interstitiis longitudinaliter tenuissimè striatis; spirâ depressiusculâ; anfractibus rotundatis; aperturâ obliquâ, subcirculari, longiore quam latiore.

A pure white species, orbiculate depressed, with numerous acute keels on the whorls, and with the spaces between the ribs finely striated.

Korean Archipelago; coral reefs. *A. A.* (Mus. Cuming.)

11. STOMATELLA CANCELLATA (pl. clxxiv. f. 6, 7, 8, 9), *Krauss*, Südafrikan. Moll. tab. 5. f. 26.

S. testâ umbilicatâ, suborbiculari, convexâ, solidâ, cinereo-albidâ, sordidè rufo-fasciatâ; costellis transversis, obtusis, irregularibus, striisque longitudinalibus, tenuibus, in anfractu penultimo distinctioribus, cancellatâ; spirâ prominente, apice acutâ; aperturâ obliquâ, mediocri, rotundatâ, intus margaritaceâ; margine columellari breviter subreflexo; umbilico distincto, lævi.

A turbinate, cancellated, rather solid shell, with a conspicuous umbilicus, and approaching in character to *Euchelus*.

Table Bay, Cape of Good Hope. (Mus. Cuming.)

12. STOMATELLA PAPYRACEA (pl. clxxiv. f. 4, 5), *Chemnitz*, Conch. tab. 5. pl. 182. f. 1817, 1818. *Stomatella tumida*, *Gould*, Exp. Shells, p. 51.

S. testâ subglobosâ, depressiusculâ, lævigatissimâ, transversim multifasciatâ, fasciis punctis albis rufisque articulatis; anfractibus convexiusculis, ultimo basi depresso; aperturâ subcirculari, obliquâ, fauce argenteâ; columellâ angustâ, basi callo semicirculari, albo, clausâ.

The animal has a horny operculum, and, although bulky, is enabled to retract entirely within the shell.

Australia; Sooloo Archipelago. *A. A.* (Mus. Cuming.)

13. STOMATELLA ARABICA (pl. clxxiv. f. 27, 28), *A. Adams*.

S. testâ ovato-globosâ, subturbinatâ, umbilicatâ, albâ, rubro concinnè variegatâ; spirâ productâ; anfractibus liratis, ultimo ventricosus, convexo, transversim striatis; aperturâ apertâ, sub-ovali; columellâ obliquâ; regione umbilicali impresso; labio albo, tenui, reflexo, umbilicum partim obtectens.

This is a small species, with the whorls round and simply stri-



ated; the colour and markings vary; the ground however is usually white, with large, irregular, reddish blotches.

Red Sea. (Mus. Cuming.)

14. *STOMATELLA HALIOTOIDEA* (pl. clxxiv. f. 10, 11), *Sowerby*,  
Genera.

S. testâ haliotoideâ, tenui, apice acuto, fusco, rufo, alboque variè pictâ, sæpe albidâ, virido-maculatâ; anfractibus planiusculis, transversim liris confertis, rugosiusculis; regione umbilicali impresso, vix rimato; aperturâ orbiculato-ovali, obliquâ.

Shell rather orbicular, with an acute apex, transversely lirate, and variously coloured with red, green, brown, and white.

Philippines; under stones, low water. (Mus. Cuming.)

15. *STOMATELLA FULGURANS* (pl. clxxiv. f. 12), *A. Adams*,  
Pro. Zool. Soc. Feb. 1850.

S. testâ suborbiculari, subperforatâ, convexâ; spirâ acuminatâ, apice acuto, roseo, transversim sulcatâ, carinulis transversis albo maculatis, longitudinaliter striatâ, striis subtus obsoletis; albidâ, lineis fuscis undulatis variegatâ; aperturâ ovali, obliquâ, intus margaritaceâ, valdè sulcosâ.

The spire is acuminate, with a rosy apex, and the shell is whitish, varied with undulated, fuscous lines; the aperture is strongly sulcate internally.

Bais, island of Negros; under stones, low water. *H. C.* (Mus. Cuming.)

16. *STOMATELLA MALUKANA* (pl. clxxiv. f. 17), *A. Adams*,  
Pro. Zool. Soc. Feb. 1850.

S. testâ suborbiculatâ, convexâ, imperforatâ, transversim sulcatâ, longitudinaliter striatâ, costulis transversis, striatis cinctâ, mustelinâ, rufo-fusco, variegatâ, subtus costis albo rufoque articulatis; spirâ prominulâ; aperturâ ovali, longiore quam latiore.

This is a solid, orbicular, rather depressed species, variegated with reddish-brown, and with the whorls adorned with transverse, striated ribs.

Moluccas. (Mus. Cuming.)

17. *STOMATELLA ORBICULATA* (pl. clxxiv. f. 23, 24), *A. Adams*,  
Pro. Zool. Soc. Feb. 1850.

S. testâ suborbiculari, convexâ, virescenti, castaneo variegatâ, transversim sulcatâ, longitudinaliter striatâ, costis confertis rotundatis instructâ; spirâ prominulâ, anfractibus rotundatis; aperturâ subcirculari, intus viridescenti.



An orbicular, transversely-grooved species, with rounded whorls, and with the aperture greenish internally.

Mosambique; under stones, low water. *Rev. W. V. Hennah.*  
(Mus. Cuming.)

18. *STOMATELLA JAPONICA* (pl. clxxiv. f. 14), *A. Adams*,  
Pro. Zool. Soc. Feb. 1850.

S. testâ suborbiculari, imperforatâ, convexâ, fuscâ, transversim costulatâ, costulis confertis nodulosis, interstitiis tenuissimè longitudinaliter striatis; spirâ prominulâ; anfractibus costatis, rotundatis; aperturâ subcirculari, intus margaritaceâ.

The aperture in this species is subcircular, and the whorls are rounded and transversely ribbed; the colour is brown, and the ribs are nodulous and close-set.

Japan. (Mus. Cuming.)

18 a. *STOMATELLA SPLENDIDULA*, *A. Adams*.

S. testâ haliotoideâ, orbiculato-depressâ, imperforatâ; spiræ anfractibus tribus, bicarinatis, anfractu ultimo transversim lirato, liris inæqualibus, asperulatis, interstitiis longitudinaliter striatis; supernè pallidâ, ad suturas rubro-fusco radiatâ, infernè rufescenti, fusco-punctatâ; infimâ facie flammulis rubris, radiantibus, ornatâ; aperturâ intus albâ, opacâ, virido spiraliter lineatâ, margine margaritaceâ.

In this species the columellar margin is reflexed and pearly, but the interior of the aperture, with the exception of the internal margin of the outer lip, is opaque white, with green spiral lines.

*Hab.* — ? (Mus. Cuming.)

19. *STOMATELLA BACONI* (pl. clxxiv. f. 25, 26), *A. Adams*.

S. testâ ovali-orbiculatâ, subturbinatâ; spirâ productâ, apice acuto, anfractibus supernè concavis; sordidè albâ, rufo-fusco variegatâ; transversim spiraliter sulcatâ, interstitiis longitudinaliter striatis; aperturâ intus sulcatâ; labio subincrassato, albo, reflexo, concentricè striato.

In form this species somewhat resembles *S. papyracea*, but it is smaller, of a more solid texture, and with the colouring and sculpture of an entirely different character.

Swan River. (Mus. Cuming.)

20. *STOMATELLA PALLIDA* (pl. clxxv. f. 44), *A. Adams* (*Stomatia*), Pro. Zool. Soc. Feb. 1850.

S. testâ suborbiculari; spirâ acuminatâ, albâ, radiis pallidis, lon-



gitudinalibus pictâ, transversim lirâtâ, interstitiis decussatè striatis; aperturâ transversâ, subovalî, intus porcellanâ; labio subrecto, calloso.

A species somewhat resembling, in colouring, striped varieties of *S. notata*, but which differs materially in form and sculpture.

Lord Hood's Island. (Mus. Cuming.)

21. *STOMATELLA BICARINATA* (pl. clxxv. f. 39, 40), *A. Adams*.

*S. testâ* turbinatâ, umbilicatâ; spirâ productâ; lutescenti, maculis viridis, radiatim dispositis, ornatâ; anfractibus planiusculis, supernè angulatis, ultimo carinis duabus, elevatis, instructo; transversim spiraliter striatâ; aperturâ mediocri, subtetragonali; columellâ rectâ, anticè vix callosâ.

This is a very pretty species, with a deep umbilicus and straight columella; the whorls are furnished with prominent keels, of which there are two on the last whorl; the shell is ornamented with green blotches.

Moreton Bay, Australia. (Mus. Cuming.)

22. *STOMATELLA BIPORCATA* (pl. clxxv. f. 43), *A. Adams*, Pro. Zool. Soc. Feb. 1850.

*S. testâ* turbinatâ, subdepressâ, rubrâ, albâ, obscurè variegatâ, transversim sulcatâ; spirâ acuminatâ, anfractibus quatuor, anfractu ultimo porcis duabus, prominentibus, instructo; aperturâ subquadratâ, intus margaritaceâ; labio subrecto; labro in medio biangulato; umbilico callo obtecto.

A small red species, with two rounded ridges on the last whorl, and with a subquadrate aperture.

Australia. (Mus. Cuming.)

23. *STOMATELLA TIGRINA* (pl. clxxv. f. 37), *A. Adams*. *Stomatella tigrina*, *A. Adams*, Pro. Zool. Soc. Feb. 1850.

*S. testâ* orbiculato-conicâ, perforatâ, albidâ, fasciis rufis, radiatim dispositis, ornatâ, bicarinatâ, carinis elevatiusculis, obtusis, transversim striatis ornatâ, striis regularibus; spirâ prominente, anfractibus angulatis; aperturâ subcirculari; labio subreflexo, calloso; umbilico distincto, subobtecto.

White, umbilicated, with radiating fuscous bands; whorls with two elevated, obtuse, transversely-striated keels; inner lip subreflexed and callous.

*Hab.* —? (Mus. Cuming.)

24. *STOMATELLA MARGARITANA* (pl. clxxiv. f. 54), *A. Adams*, Pro. Zool. Soc. Feb. 1850.



S. testâ turbinatâ; spirâ elevatâ; anfractibus rotundatis, rubrâ, longitudinaliter striatâ, transversim costulatâ, costulis subnodulosis, inæqualibus; aperturâ suborbiculari, intus margaritaceâ; labro semicirculari; umbilico callo obtecto.

A small, red, transversely-ribbed species, having very much the appearance of a *Margarita*.

Australia. (Mus. Cuming.)

25. STOMATELLA COCCINEA (pl. clxxv. f. 35, 36), *A. Adams*, Pro. Zool. Soc. Feb. 1850.

S. testâ orbiculato-conicâ, subperforatâ, coccineâ; maculis albis, seriatim dispositis in anfractu ultimo, ornatâ, transversim tenuiter sulcatâ; anfractu ultimo subangulato; spirâ prominente; anfractibus bicarinatis; aperturâ subcirculari; labio posticè reflexo, calloso.

Subperforate, red, with white spots, disposed in rows on the last whorl; the last whorl is somewhat angulated, and the whorls of the spire are bicarinate; the inner lip is reflexed posteriorly, and callous.

St. John's. *Mr. Hartweg*. (Mus. Cuming.)

26. STOMATELLA CALLIOSTOMA (pl. clxxv. f. 41, 42), *A. Adams*.

S. testâ ovato-subturbinatâ, rimatâ; spirâ depressâ; rufescenti, fusco variegatâ, transversim lirâtâ, liris elevatis, inæqualibus; aperturâ transversim ovali, intus roseâ, iridescenti; labio tenui, acuto, arcuato.

The interior of the aperture in this species is of a beautiful reddish or violet tint; externally, the whorls are spirally lirate, and of a dull, reddish-brown, variegated with markings of a darker colour.

Ceylon. (Mus. Cuming.)

#### GENUS MICROTIS, H. et A. Adams.

Animal as in *Stomatia*, but the foot with a deep, anterior fissure for the head, and with the front edge bilobed.

Operculum none.

Shell spiral, suborbicular, depressed, with two tuberculated ridges; spire slightly prominent; aperture very large, wider than long, pearly within; columellar margin spiral, visible as far as the apex of the spire.

If the just law of priority should be carried into the Vegetable



Kingdom, the name of this little genus might be changed to *Microtina*, as there is a genus of grasses named *Microtis* by Robert Brown.

MICROTIS TUBERCULATA (pl. clxxv. f. 45, 46, 47), *A. Adams*, Pro. Zool. Soc. Feb. 1850.

M. testâ suborbiculari, haliotoideâ, valdè depressâ, viride variegatâ, transversim striatâ, bicarinatâ, carinis tuberculatis, prope suturam nodulosim plicatâ; spirâ vix elevatâ, anfractibus carinatis; aperturâ magnâ, ovali, intus bi-sulcatâ, margaritaceâ.

The shell resembles a small imperforate *Haliotis*, and the columellar margin is visible as far as the apex of the spire, as in some species of that genus.

Island of Capul; on the sands, high water. (Mus. Cuming.)

#### GENUS STOMATIA, Helbling.

Animal spiral, too large entirely to enter the shell; tentacular frontal lobes digitated; foot large, fleshy, tubercular, greatly produced posteriorly; lateral membrane fringed, ending anteriorly, on the left side, in a fimbriated crest under the eye-pedicel, and on the right, in a slightly-projecting fold, or gutter, leading to the respiratory cavity.

Operculum none.

Shell subspiral, oblong or suborbicular, carinated or tuberculated; spire prominent; aperture wider than long, perlaceous within.

*Syn.* Stomax, *Montfort*; Haliotoidea, *Humphrey*; Sigaretus, *Schum.*, not *Lamarck* or *Cuv.*

1. STOMATIA PHYMOTIS (pl. clxxv. f. 48, 49, 50, 51, 52), *Helblin*, Privatg. 4, t. 2. f. 34, 35. *Haliotis* imperforata, *Chem.* *Var.* Stomatia Australis, *A. Adams*, Pro. Zool. Soc. Feb. 1850.

S. testâ haliotoideâ, ovato-oblongâ, dorso convexâ, striatâ, nodulosâ, argenteâ; spirâ parvulâ, contortâ; labro tenui, acuto.

Shell haliotoid, ovate-oblong, convex on the back, striated, nodulous, silvery; spire small, contorted; outer lip thin, acute.

The *Stomatella obscurata* of *Lamarck*, judging from the description, is a worn specimen of the above species.

Philippine Islands; on the reefs. (Mus. Cuming.)

2. STOMATIA DUPLICATA (pl. clxxv. f. 61, 62, 63), *Sowerby* (*Stomatella*), *Genera*.



S. testâ halioideâ, oblique conoideâ; spirâ acuminatâ; albidâ, fasciis latis, rubris radiatim pictâ, transversim valdè striatâ; anfractibus concavis, ad suturas longitudinaliter plicatis; anfractu ultimo carinis duabus, obtusis, transversis, instructo; aperturâ ovali, obliquâ; labro, in medio, biangulato.

A species known readily by the two obtuse, transverse keels on the last whorl, and by the elevation of the spire.

Cagayan, province of Misamis, island of Mindanao; under stones, low water. (Mus. Cuming.)

3. STOMATIA RUBRA (pl. clxxv. f. 53, 54, 55, 56), *Lamarck* (Stomatella), Hist. ed. Desh. vol. iv. p. 16. Stomatella sulcata, *Lam. Encycl.* pl. 450. f. 3 *a b*.

S. testâ orbiculato-convexâ, transversim striatâ et bicarinatâ, longitudinaliter obsoletè plicatâ, rubrâ, prope suturas albo-maculatâ, carinis nodulosis; anfractibus supernè planulatis; spirâ brevi, acutâ.

Shell orbiculate, convex, transversely striate and bicarinate, longitudinally obsoletely plicate, red, spotted with white near the suture, keels nodulous; whorls flattened above; spire short, acute.

Philippine and Korean Archipelagos. (Mus. Cuming.)

5. STOMATIA LIRATA (pl. clxxv. f. 58, 59), *A. Adams*, Pro. Zool. Soc. Feb. 1850.

S. testâ orbiculato-convexâ, liris transversis, subæqualibus, elevatis vix nodulosis instructâ, interstitiis valdè longitudinaliter striatis, prope suturam subplicatâ, pallidâ, fusco radiatim marmoratâ, spirâ subprominulâ; anfractibus rotundatis; aperturâ obliquâ, oblongo-ovali; labro convexo, rotundato.

The shell is orbicular, with rounded whorls; the spire rather depressed, and the whorls with transverse, elevated, subnodulous ridges.

*Hab.* — ? (Mus. Cuming.)

6. STOMATIA ANGULATA (pl. clxxv. f. 57), *A. Adams*, Pro. Zool. Soc. Feb. 1850.

S. testâ orbiculato-convexâ, subdepressâ, viridulâ, transversim valdè costulatâ, interstitiis longitudinaliter striatis, carinis duabus elevatis simplicibus angulatis; aperturâ transversâ, subcirculari; labro, in medio, biangulato.

Green, transversely strongly ribbed, and with two simple, angu-



lated keels; aperture subcircular; outer lip bi-angulated in the middle.

San Estevan, province of South Ilocos, island of Luzon; under stones, low water. (Mus. Cuming.)

7. *STOMATIA ACUMINATA* (pl. clxxv. f. 64), *A. Adams*, Pro. Zool. Soc. Feb. 1850.

S. testâ haliotoideâ, suborbiculatâ, subfuscâ, cancellatâ, transversim costatâ, costis tribus, prominentibus, mediâ valdè prominulâ, tuberculatâ, valdè plicatâ prope suturam, longitudinaliter elevatè striatâ; spirâ prominulâ, acuminatâ, anfractibus quatuor, angulatis; labro, in medio, tri-angulato.

This is a cancellated, transversely-ribbed species, strongly plicate near the suture.

Philippine Islands. (Mus. Cuming.)

8. *STOMATIA DECUSSATA* (pl. clxxv. f. 60), *A. Adams*, Pro. Zool. Soc. Feb. 1850.

S. testâ ovato-oblongâ, longitudinaliter et transversim decussatè striatâ, carinis duabus, simplicibus aut subtuberculatis, angulatis, prominentibus; pallidâ, maculis fuscis variegatâ; spirâ elevatâ; aperturâ obliquâ, ferè orbiculari; labro bi-angulato in medio.

This species is decussated with transverse and longitudinal striæ, and there are two prominent, angular keels on the whorls; the spire is acute and prominent.

Sorsogon, province of Albay, island of Luzon; on smooth stones, six fathoms. *H. C.* (Mus. Cuming.)

#### SPECIES UNIDENTIFIED.

*Stomatella decolorata*, Gould, Exp. Sh. p. 51.

*Stomatella inflata*, C. B. Adams, Shells of Panama, p. 216.

*Stomatella minima*, Dufo. Ann. Sc. Nat. Oct. 1840, p. 202.

*Stomatella irasata*, Dufo. Ann. Nat. Sc. Oct. 1840, p. 20.



## LIST OF FIGURES IN PLATES CLXXIII. TO CLXXV.

(The Figure after each Name refers to the number of the Species.)

## PLATE CLXXIII.

## GENA.

- Fig.  
 1-3. *G. planulata*, *Lam.* 3.  
 4, 5. — *lutea*, *Linn.* 1.  
 6-8. — *varia*, *A. Ad.* 2.  
 9, 10. — *striatula*, *A. Ad.* 6.  
 11, 12. — *strigosa*, *A. Ad.* 7.  
 13. — *plumbea*, *A. Ad.* 5.  
 14-16. — *nigra*, *Quoy*, 4.  
 17-19. — *pulchella*, *A. Ad.* 12.  
 20, 21. — *concinna*, *Gould*, 11.  
 22. — *lintricula*, *A. Ad.* 9.  
 23. — *nebulosa*, *A. Ad.* 8.  
 24, 25. — *ornata*, *A. Ad.* 14.  
 26, 27. — *lineolata*, *A. Ad.* 10.  
 28, 29. — *asperulata*, *A. Ad.* 13.

## BRODERIPIA.

- 30, 31. *B. Cumingii*, *A. Ad.* 3.  
 32, 33. — *iridescent*, *Brod.* 1.  
 34, 35. — *rosea*, *Brod.* 2.

## PLATE CLXXIV.

## STOMATELLA.

1. *S. imbricata*, *Lam.* 1.  
 2. — *articulata*, *A. Ad.* 4.  
 3. — *sulcifera*, *Lam.* 2.  
 4, 5. — *papyracea*, *Chem.* 12.  
 6-9. — *cancellata*, *Krauss*, 11.  
 10, 11. — *halioidea*, *Sowb.* 14.  
 12. — *fulgurans*, *A. Ad.* 15.  
 13. — *monilifera*, *A. Ad.* 6.  
 14. — *Japonica*, *A. Ad.* 18.

## Fig.

- 15, 16. *S. splendidula*, *A. Ad.* 18 a  
 17. — *Malukana*, *A. Ad.* 16.  
 18-21. — *notata*, *A. Ad.* 7.  
 22. — *candida*, *A. Ad.* 10.  
 23, 24. — *orbiculata*, *A. Ad.* 17.  
 25, 26. — *Baconi*, *A. Ad.* 19.  
 27, 28. — *Arabica*, *A. Ad.* 13.  
 29. — *speciosa*, *A. Ad.* 9.  
 30. — *sanguinea*, *A. Ad.* 8.  
 31. — *margaritana*, *A. Ad.* 24.

## PLATE CLXXV.

- 32-34. — *maculata*, *Lam.* 5.  
 35, 36. — *coccinea*, *A. Ad.* 25.  
 37. — *tigrina*, *A. Ad.* 23.  
 38. — *Cumingii*, *A. Ad.* 3.  
 39, 40. — *bicarinata*, *A. Ad.* 21.  
 41, 42. — *callostoma*, *A. Ad.* 26.  
 43. — *biporcata*, *A. Ad.* 22.  
 44. — *pallida*, *A. Ad.* 20.

## MICROTIS.

- 45-47. *M. tuberculata*, *A. Ad.*

## STOMATIA.

- 48-52. *S. phymotis*, *Helblin*, 1.  
 53-56. — *rubra*, *Lam.* 3.  
 57. — *angulata*, *A. Ad.* 6.  
 58, 59. — *lirata*, *A. Ad.* 5.  
 60. — *decussata*, *A. Ad.* 8.  
 61-63. — *duplicata*, *Sowb.* 2.  
 64. — *acuminata*, *A. Ad.* 7.



## STOMATELLINÆ.

## ALPHABETICAL LIST OF SPECIES.

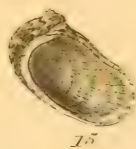
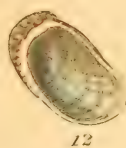
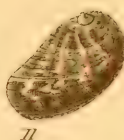
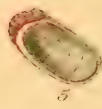
- acuminata, *A. Adams*, Stomatia 7, pl. 175. f. 64.  
 angulata, *A. Adams*, Stomatia 6, pl. 175. f. 57.  
 Arabica, *A. Adams*, Stomatella 13, pl. 174. f. 27, 28.  
*auricula*, Gena lutea, 1.  
 articulata, *A. Adams*, Stomatella 4, pl. 174. f. 2.  
 asperulata, *A. Adams*, Gena 13. pl. 173. f. 28, 29.  
 Baconi, *A. Adams*, Stomatella 19, pl. 174. f. 25, 26.  
 bicarinata, *A. Adams*, Stomatella 21, pl. 175. f. 39, 40.  
 biporcata, *A. Adams*, Stomatella 22, pl. 175. f. 43.  
 calliostoma, *A. Adams*, Stomatella 26, pl. 174. f. 41, 42.  
 cancellata, *Krauss*, Stomatella 11, pl. 174. f. 6, 7, 8, 9.  
 candida, *A. Adams*, Stomatella 10, pl. 174. f. 22.  
 concinna, *Gould*, Gena 11. pl. 173. f. 20, 21.  
 coccinea, *A. Adams*, Stomatella 25, pl. 175. f. 35, 36.  
 Cumingii, *A. Adams*, Broderipia 3, pl. 173. f. 30, 31.  
 Cumingii, *A. Adams*, Stomatella 3, pl. 175. f. 38.  
 decolorata, Stomatella, *not identified*.  
 decussata, *A. Adams*, Stomatia 8, pl. 175. f. 60.  
 duplicata, *Sowb.*, Stomatia 2, pl. 175. f. 61-63.  
 fulgurans, *A. Adams*, Stomatella 15, pl. 174. f. 12.  
 haliotoidea, *Sowb.* Stomatella 14, pl. 174. f. 10, 11.  
 imbricata, *Lamk.*, Stomatella 1, pl. 174. f. 1.  
*imperforata*, *Chem.*, Stomatia phymotis, 1.  
 inflata, Stomatella, *not identified*.  
 iridescens, *Brod.*, Broderipia 1, pl. 173. f. 32, 33.  
 irasata, Stomatella, *not identified*.  
 Japonica, *A. Adams*, Stomatella 18, pl. 174. f. 14.  
 lineata, *A. Adams*, Gena 10, pl. 173. f. 26, 27.  
 lintricula, *A. Adams*, Gena 9, pl. 173. f. 22.  
 lirata, *A. Adams*, Stomatia 5, pl. 175. f. 58, 59.  
 lutea, *Linn.*, Gena 1, pl. 173. f. 4, 5.  
 maculata, *Lamk.*, Stomatella 5, pl. 175. f. 32-34.  
 Malukana, *A. Adams*, Stomatella 16, pl. 174. f. 17.



- margaritana, *A. Adams*, Stomatella 24, pl. 174. f. 54.  
 minima, Stomatella, *not identified*.  
 monilifera, *A. Adams*, Stomatella 6, pl. 174. f. 21.  
 nebulosa, *A. Adams*, Gena 8, pl. 173. f. 23.  
 nigra, *Quoy*, Gena 4, pl. 173. f. 14, 15, 16.  
 notata, *A. Adams*, Stomatella 7, pl. 174. f. 18-21.  
 orbiculata, *A. Adams*, Stomatella 17, pl. 174. f. 23, 24.  
 ornata, *A. Adams*, Gena 14, pl. 173. f. 24, 25.  
 pallida, *A. Adams*, Stomatella 20, pl. 175. f. 44.  
 papyracea, *Chem.*, Stomatella 12, pl. 174. f. 4, 5.  
 phymotis, *Helblin*, Stomatia 1, pl. 175. f. 48-52.  
 planulata, *Lamk.*, Gena 3, pl. 173. f. 1, 2, 3.  
 plumbea, *A. Adams*, Gena 5, pl. 173. f. 13.  
 pulchella, *A. Adams*, Gena 12, pl. 173. f. 17, 18, 19.  
 rubra, *Lamk.*, Stomatia 3, pl. 175. f. 53-56.  
 sanguinea, *A. Adams*, Stomatella 8, pl. 174. f. 30.  
 speciosa, *A. Adams*, Stomatella 9, pl. 174. f. 29.  
 splendida, *A. Adams*, Stomatella 18 a, pl. 174. f. 15, 16.  
 striatula, *A. Adams*, Gena 6, pl. 173. f. 9, 10.  
 strigosa, *A. Adams*, Gena 7, pl. 173. f. 11, 12.  
*sulcata*, Stomatia rubra, 3.  
 sulcifera, *Lamk.*, Stomatella 2, pl. 174. f. 3.  
 tigrina, *A. Adams*, Stomatella 23, pl. 175. f. 37.  
 tuberculata, *A. Adams*, Microtis, pl. 175. f. 45-47.  
 varia, *A. Adams*, Gena 2, pl. 173. f. 6, 7, 8.



STOMATELLINÆ









STOMATELLINÆ









STOMATELLINÆ









## MONOGRAPH OF THE GENUS

CERITHIUM, *Adanson.*

INCLUDING

VERTAGUS, *Klein*, COLINA, *A. Adams*, BITTIUM, *Leach*, PIRENELLA, *Gray*, CERITHIOPSIS, *Forbes and Hanley*, PYRAZUS, *Montfort*, LAMPANIA, *Gray*, CERITHIDEA, *Swainson*, POTAMIDES, *Brongniart*, TYMPANOTOMUS, *Klein*, and TELESCOPIUM, *Chemnitz*.

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Molluscum trachelipodium; testâ turritâ, operculiferâ, varicosâ, plerumque tuberculatâ et striatâ; aperturâ canaliferâ.

In retaining all the species included in this Monograph within a single genus, I am not to be considered as implying an opinion that no divisions could be made with advantage. Many of the genera of authors enumerated above, may probably constitute good foundations for a more accurate distribution of the species. But the misfortune is that the authors have not had the whole range of species before them, or at least have not had to prepare lists of all the species under their respective denominations. Now, it is easy to take two or three species here, and form them into a genus under one name, and to take two or three there to make a genus under another name; but it is not so easy to take every species and to place each in its appropriate genus. For if the species are placed in a line, it is almost impossible to mark the boundaries of the separate groups. I know an instance of a most accomplished conchologist attempting to arrange an extensive collection of *Cerithidae* according to the modern style of numerous small genera, and the result was, of course, that he had a great many species which he did not know what to do with; and instances occurred in which specimens of the same species



were placed apart in different genera. Endeavouring, therefore, to give a correct account of the species, and of course keeping those most alike, nearest to each other, I leave the task of forming generic groups to those who think them useful.

I wish to record my obligations to Mr. Arthur Adams, Surgeon, R.N., for his kindness in permitting me the full use of his manuscripts on the present genus, of which he was preparing a monograph. Had not that gentleman been called to the country before the work was completed, my readers would have enjoyed the benefit of his labours entire and unadulterated. As it is, having to complete the work which he had begun, I have been forced, in a measure, to model it upon my own views. It has nevertheless been my endeavour, as far as possible, to retain the same arrangements which he proposed, although in another form; while the synonyms so carefully collected in the manuscript have proved most valuable, and have in the great majority of instances been adopted as perfectly correct.

DIVISION 1.—*Marine, generally with a produced canal. Operculum oval, with few whorls.*

1 a. *A long, upturned canal, and a kind of plait or callus in the middle of the columella.*—Genus VERTAGUS, Klein.

1. CERITHIUM VERTAGUS (pl. clxxvi. f. 2, 3), *Linnæus*, Syst. Nat. (Murex). *Vertagus vulgaris*, *Schum.*

Cerith. testâ subcylindraceâ, albo vel pallidè fulvâ, lævi; anfractibus superioribus nodulosim costatis, medianis latis, rectiusculis, ad suturam plerumque plicatis; aperturâ obliquâ, albâ; labio interno crasso, buplicato; labio externo anticè incrassato, canali obliquè recurvo.

This common white or pale brown species has the central whorls swelling in bulk, although straight at the sides, and crenulated or plicated at the sutures. From the Molluccas and Philippines.

2. CERITHIUM TÆNIATUM (pl. clxxvi. f. 1), *Quoy et Gaimard*, Voy. Astrolabe; *Kiener*, Sp. Gen. Coq. pl. 19. f. 2.

Cerith. testâ *C. Vertago* simillimâ, sed rubro-fasciato canali brevior.

The form of the canal seems slightly different, being (from the figure) shorter and less gradually curved than in *C. Vertagus*. The colouring in bands, too, is scarcely a variation which we should expect in the latter species. New Guinea.



3. *CERITHIUM FASCIATUM* (pl. clxxvi. f. 6, 7, 8, 9, 10), *Brug.* E. M. p. 474. *Cerith.* no. 3. *C. Martinianum*, *Pfeiffer*, *Krit. Regist.* *C. procerum*, *Kiener*, pl. 18. f. 1.

*Cerith.* testâ elongatâ, subpyramidali, lævi, albâ vel fusco maculatâ vel fasciatâ, plus minusve spiraliter sulcatâ; anfractibus rectiusculis, ad suturam plicatis; aperturâ obliquâ, albâ; labio interno vix biplicato; labio externo anticè incrassato; canali obliquè recurvo.

Much more lengthened and with more whorls than *C. Vertagus*, less swelled in the middle, very slightly grooved, and white-banded or spotted. Mr. Cumming's specimens of the different varieties are from the Philippines. It is reported generally as an Indian shell.

4. *CERITHIUM PHAROS* (pl. clxxvi. f. 20, 21, 22), *Hinds*, *Moll. Voy. Sulph.* p. 27. pl. xi. f. 3, 4. *C. subulatum*, *Lamk.*, no. 23.

*Cerith.* testâ elongatâ, albâ, pallidè lineatâ vel seriatim punctatâ, spiraliter inciso-sulcatâ, longitudinaliter crebrè et acutè plicatâ; aperturâ obliquâ, albâ; labio interno vix biplicato; labio externo anticè incrassato; canali obliquè recurvo.

Smaller, narrower, and more sharply and numerous plicated, especially at the sutures, than *C. fasciatum*. The name "*subulatum*" is used by Montagu for another species. East coast of Africa.

5. *CERITHIUM ASPERUM* (pl. clxxvi. f. 11, 12), *Linnaeus* (*Murex asper*), *Syst. Nat.* *Clava rugata*, *Martyn.* *Strombus vibex*, *Gmel.* *C. asperum*, *Lamk.* *Murex granulatus*, *Linn.*, non *Brug.*

*Cerith.* testâ elongatâ, albâ, nonnunquam rubro-lineatâ, longitudinaliter plicatâ; plicis numerosis, acutè serratis; aperturâ ovali, obliquâ; labio interno posticè uniplicato, in medio intùs obliquè biplicato, extus unidentato; labio externo serrato; canali recurvo.

The numerous longitudinal ribs are serrated by the spiral grooves crossing them, so as to produce a series of sharp points: these points are formed into a more prominent rib at the lower part of the last whorl. The lineated variety of this species is rare.

6. *CERITHIUM LINEATUM* (pl. clxxvi. f. 4, 5), *Brug.*, *Lamk.* *Anim.* sans vert. *C. asper*, var. nonnull.

*Cerith.* testâ *C. aspero* simili, sed costis longitudinalibus distantibus magnis; sulcis spiralibus paucis plerumque spiraliter lineatâ.



While this species is generally lineated, but sometimes occurs white or spotted, it is more usual with the preceding to be white; but the true difference, if sufficiently marked to be specific, is the great width between the asperated ribs and the distance of the points upon them. The species is from the Pacific Ocean.

7. *CERITHIUM ALUCO* (pl. clxxvii. f. 34, 35), *Linnaeus*, Syst. Nat. ed. 12. p. 1225 (*Murex*). *Murex coronatus*, *Born*.

*Cerith*. testâ lævi, pallidâ, nigro et fusco maculatâ; anfractibus ventricosus, superioribus cancellatis, medianis angulo superiore distanter angulatim et acutè noduliferis, ultimo univariicoso; aperturâ albâ, bicanaliferâ; labio interno integro posticè uniplicato, anticè ad canalem angulifero; labio externo rotundato, super canalem in angulum producto; canali elongato subabrupte recurvo.

The whorls are crowned with large, distant, acute tubercles. The whole shell, excepting the apical whorls, is smooth and spotted with irregular specks and blotches of black. The aperture is more inflated than either of the clavate species. The dark specimen figured is from the Philippines. The light small specimen is from the collection of the late Mr. G. B. Sowerby. Locality unknown.

8. *CERITHIUM SOWERBII* (pl. clxxvii. f. 33), *Kiener*, Sp. de Coq. pl. 7. f. 2. *C. clava*, *Sowerby's Genera*.

*Cerith*. testâ solidâ, pallidâ, lævigatâ, pyramidal, fusco nebulatâ et punctis maculisque tessellatâ; anfractibus superioribus subcrenulatis et carinatis, medianis ad latera compressis; suturâ vix distinctâ; aperturâ subquadratâ, posticè canalifero; labio interno purpurascente, posticè uniplicato, anticè laminatim incrassato; labio externo rotundatim incurvo, lævi; canali attenuato, abruptè incurvo.

Differing from *C. aluco* in its more pyramidal form, the straightening of the whorls, the comparative squareness of the aperture, and the greater solidity of the whole shell. The late Mr. G. B. Sowerby thought that he recognized in this shell the *C. clava* of Bruguière.

9. *CERITHIUM CUMINGII* (pl. clxxvi. f. 19), *A. Adams* (*Veragus*).

*Cerith*. testâ lævigatâ, nigro et fusco longitudinaliter disruptim fasciatâ; anfractibus superioribus subangulatis cancellatis, medianis vix angulatis, ultimo ovali; aperturâ bicanaliculatâ; canali recurvo.



The only specimen we possess of this magnificent shell is incomplete in the aperture: it is more cylindrical than either of the preceding, and the central whorls gently swelled; some of them having a slight angle near the upper part. The dark zebra-like markings give a rich appearance to the exterior. Mr. Cuming's specimen is from Torres Straits, by Captain Ince.

10. CERITHIUM MACULOSUM (pl. clxxvii. f. 29), *Martyn*. Clava maculosa, *Martyn*, Univ. Conch. pl. 57. *Cerithium clava*, *Brug.*, E. M. p. 479; Martini Conch. t. 10. p. 256. vig. 22. f. a, b. *C. marmoreum*, *Kiener*, pl. 31. f. 1.

*Cerith. testâ ponderosâ, ventricosâ, pallidâ, fusco maculatâ, spiraliter inciso-sulcatâ; anfractibus superioribus costatis, medianis undulatis, ultimo varice magno; suturâ partim crenulatâ; aperturâ magnâ, albâ, posticè in canalem productâ; labio interno subangulato, prope canalem posticum incrassato, anticè laminatim expanso; labio externo subindentato, versus canalem incurvato; canali angustato, profundo, abruptè recurvo.*

This very thick, broad *Cerithium* is of a light colour, spotted with brown. The upper whorls are ribbed; the middle ones are comparatively smooth: the last has a great varix opposite the mouth. The whole shell is marked by incised spiral lines.

11. CERITHIUM NOBILE (pl. clxxvii. f. 28), *Reeve*.

*Cerith. testâ crassâ, elongatâ, pallidâ, tessellatâ, spiraliter lineis elevatis cinctâ; anfractibus numerosis, superioribus rotundis, sparsim varicosis, medianis lævibus, rectis, ad suturam paululùm elevatis; aperturâ subquadratâ, albâ, bicanaliculatâ; labio externo, lævi, versus canalem incurvo; labio interno laminatim incrassato, posticè uniplicato; canali alternato, abruptè recurvo.*

This shell is more gracefully formed than the preceding. The whorls are compressed at the sides, and marked by pale fulvous bands, crossed in squares. The aperture resembles that of *C. maculosa*. Mr. Cuming brought his specimens from Mindanao, Philippines.

12. CERITHIUM OBELISCUS (pl. clxxvii. f. 30, 31, 32), *Brug.*, E. M. pl. 443. f. 4, a, b. *Murex Sinensis*, *Gmel.*, no. 54.

*Cerith. testâ pyramidalî, solidâ, punctis et maculis fuscis nigrescentibus variegatâ, spiraliter granoso-sulcatâ; anfractibus ad latera rectiusculis, ad suturam tuberculatis; ultimo anfractu inflato, univaricoso; aperturâ brevi; labio interno uniplicato, laminato; labio externo arcuato; canali abruptè ad dorsum reflexo.*



Formed like *C. Sowerbii* and *C. nobile*, but distinguished by spiral riblets, granulated and spotted between the granules, and a row of tubercles at the suture. The closely grained variety is in Mr. Hanley's collection. This species is commonly called the "Chinese Obelisk."

13. *CERITHIUM SEMIGRANOSUM* (pl. clxxvii. f. 36, 37), *Lamk.*, Anim. s. vert. no. 18.

Cerith. testâ *C. obelisco* simili, sed sulcis spiralibus paucis latis magis elevatis; anfractibus ad suturam tuberculis rotundatis.

The nodules at the suture of this species are not sharp, but rounded and partly confluent with the highest row of granules, which are distant and broad: in these respects it differs from *C. obeliscus*. The beautifully mottled specimen belongs to Mr. Metcalfe. New Holland.

14. *CERITHIUM CEDO-NULLI* (pl. clxxvii. f. 38, 39, 40), *Nobis*.

Cerith. testâ *C. obelisco* simili, sed brevior; sulcis rariusculis, tuberculis ad suturam magnis.

A shorter and less pyramidal shell than *C. obeliscus*, with the ridges of granules more distant, and the row of tubercles at the suture very prominent and large. The variations in colouring are beautiful and striking. Island of Annaa, in the South Pacific, *H. Cuming*; Borneo, *Lieut. Taylor, R.N.*; and Philippines, *H. Cuming*.

15. *CERITHIUM PULCHRUM* (pl. clxxvii. f. 25), *A. Adams*. *Vertagus pulcher*.

Cerith. testâ pyramidalis, solidâ, pallidâ, ad suturam perclevatim nodulosâ, inter nodulos nigro-maculatâ, omnino minutè granosâ et cancellatâ; aperturâ brevi; labio interno uniplicato, anticè laminato; labio externo arcuato; canali abruptè ad dorsum reflexo.

In form resembling *C. obeliscus*, this beautiful shell is minutely cancellated in every part and at the sutures, the whorls are graduated and crowned by a series of rounded nodules, having a black spot between each. Mr. Cuming has the specimen from North Australia.

16. *CERITHIUM ARTICULATUM* (pl. clxxvii. f. 26, 27), *A. Adams et Reeve*. *Vertagus articulatus*.

Cerith. testâ *C. obeliscus* simili, sed anfractibus subinciso-sul-



catis, sulcis acutè plicatis, ad suturam angulatim acutè pliciferis.

The sculpture is much sharper than in *C. obeliscus*, and the sulci as it were incised, and a row of sharp, regular plaits at the suture quite distinguishes the species.

17. *CERITHIUM GEMMATUM* (pl. clxxvii. f. 41), *Hinds*, Moll. Voy. Sulph. pl. 11. f. 5, 6.

*Cerith. testâ clavatâ, turritâ, acuminatâ, nitidâ; anfractibus planulatis, triseriatim granosis, serie superiore maximâ; lineis rufis transversim ornatis, prope labrum divergentibus, infra suturam albidis; aperturâ albâ, supernè callosâ; columellâ infernè productâ, plicâ parvâ; canali obliquè descendente.*

With the general form of *C. obeliscus* and the several similar species, this species is remarkable for the width and flatness of the last whorl, and for the thickened and ascending lips of the aperture. The whorls are beaded in three rows, the most prominent being on the upper edge. The fold on the columella is scarcely perceptible, and the slightly upturned canal is short. Panama, three to seven fathoms, on a sandy floor.

18. *CERITHIUM ATTENUATUM* (pl. clxxvii. f. 23, 24), *Philippi*, Abbild. t. i. f. 2. *C. longicaudatum*, *Reeve et Adams*, Zool. Samarang, Moll. p. 43. pl. 10. f. 15 (1850).

“*Cerith. testâ subulato-turritâ, e rufo albidâ; anfractibus planiusculis, cingulis transversis parum elevatis subgranosis circa novem sculptis, supremis costulatis; aperturâ latè ovatâ; labro crenulato, extus incrassato, intus sulcato; labio calloso, superius plicâ transversâ distincto; caudâ angustâ, prælongâ, obliquâ.*”

A very lengthened shell, with many whorls (nine in the above description, fifteen in the accompanying figure, and seventeen in our specimen here represented); on each whorl five beaded, alternate with five plain, less elevated riblets. The canal is long and very obliquely curved. Pasacao, Island of Luzon, Philippines, *H. Cuming*.

19. *CERITHIUM KOCHII* (pl. clxxvi. f. 13, 14, 15), *Philippi*, Abbild. pl. i. f. 3.

*Cerith. testâ angustâ, pallidâ, fusco vel rufo interlineatâ; anfractibus spiraliter costellatis, costellis alternatim granosis et planis; aperturâ subobliquâ; labio externo paululum incrassato; labio interno uniplicato; canali brevè adscendente.*

In sculpture this species resembles *C. attenuatum*, but the form



is very different ; the whorls much less distinct from each other, the mouth smaller, and the canal shorter. It is found on the coasts of East Africa.

20. CERITHIUM RECURVUM (pl. clxxvi. f. 16, 17, 18), *Nobis*.

Cerith. testâ acuminatâ, albâ, fulvo vel rufo interpunctato ; anfractibus duodecim, triseriatim granosis, ultimo costellis septem granosis ornato ; aperturâ posticè canalifero ; labio externo crenato ; labio interno anticè incrassato, vix plicato ; canali antico breviusculo recurvo.

The upper whorls show three rows of granules, with spots of colour between them. The young specimen with dark spots, and the one hardly showing any, are Mr. Hanley's : that with orange spots is Mr. Cuming's. The last whorl seems to narrow towards the canal, and to turn upwards with it. Habitat unknown.

- 1 b. *A distinct canal, more or less produced, and generally a plait on the upper part of the columella.*—Genus CERITHIUM, as restricted by some authors.

21. CERITHIUM NODULOSUM (pl. clxxviii. f. 42), *Brug.*, Dict. no. 8. *C. aluco*, *Born, non Linn.* *Murex tuberosus*, *Dillw.*

Cerith. testâ magnâ, crassâ, pyramidali, rugosâ, spiraliter sulcatâ, nodulis magnis obtusis armatâ, griseâ, maculis fuscis sparsâ ; ultimo anfractu ad latus univaricoso ; aperturâ posticè uniplicatâ ; labio interno anticè subtruncato seu uniplicato ; labio externo expanso, sulcato, margine laqueato anticè super canalem incurvo.

A large, rough shell, of grey colour, spotted with blackish-brown, and having large knobs, about ten on each whorl, excepting the last, which is flattened in front, and has a large spreading varix at the side. The inner lip has a kind of fold near each end ; and the outer lip is spread, elevated above, and drawn round over the canal at the lower part. It is strongly grooved and fluted. The canal is rather short, and not much curved. *Hab.* Molluccas, *Lam.* ; Philippines, *Cum.*

22. CERITHIUM POLYGONUM (pl. clxxviii. f. 46), *Nobis*.

Cerith. testâ pyramidali, griseâ, spiraliter sulcatâ ; costis magnis, regularibus, supernè angulatis, continuis ; aperturâ ignotâ.

The only specimen we have seen is in Mr. Cuming's collection, but it is not full grown ; hence we can only describe it provisionally. It looks like the commencement of a very handsome shell, which might be allied to the fossil *C. gigas*. Port Essington, *Mr. Jukes*.



23. CERITHIUM LÆVE (pl. clxxxv. f. 270), *Quoy*, Voy. Astr. pl. 54. f. 1-3.

Cerith. testâ magnâ, conicâ, albâ, attenuatâ; anfractibus numerosis, planulatis, infernè prope suturam subangulatis, bicarinatis, ultimo subtùs rotundato; aperturâ obliquè quadratâ; columellâ tenui, tortâ; labio externo tenui, posticè emarginato, anticè rotundatum producto; operculo ovato, paucispirali.

Although this large white shell seems, in the shape of the aperture and in general appearance, to consort with *C. telescopium*, Quoy reports and figures an oval, paucispiral operculum. It would seem therefore to belong to the present division, and is a near neighbour to the fossil *C. gigas*. It is an Australian species.

24. CERITHIUM TUBEROSUM (pl. clxxviii. f. 49), *Fabricius*, Colum. Æquat. Cerith. erythrænense, *Lamarck*, Anim. s. vert. *Cerith.* no. 12. Strombus striatus, *Schroter*. Buccinum tuberosum.

Cerith. testâ albâ, fusco-maculatâ et fasciatim punctatâ, spiraliter acutè striatâ, nodulis in medio angulatis, irregularibus, et varicibus magnis armatâ; labio interno anticè et posticè plicato; labio externo angulato, subdigitato, anticè super canalem incurvo; canali rectiusculo.

A more acute, lighter shell than *C. nodulosum*, with the canal rather longer, the outer lip more angular and more sharply notched, the sculpture more sharp and minute. *Hab.* Near Suez.

25. CERITHIUM COLUMNA (pl. clxxviii. f. 55, 56, 57, 58), *Sowerby*, Gen. of Sh. *C. echinatum*, *Kiener*.

Cerith. testâ breviusculâ, subobtusâ, spiraliter sulcatâ, angulatum costatâ, variegatâ, plerumque ad apicem lividâ, costis magnis; aperturâ bicanaliculatâ; labio interno posticè uniplicato; labio externo incrassato, laqueato, anticè simplici; canali brevi.

This species is varied in colour, form, and sculpture, but its general character is best expressed in figure 56, as consisting of rather distant, sharply angular ribs, which are crossed by sharp lines. It differs from *C. nodulosum* and *C. erythrænense* in being of a more obtuse form, and not having the outer lip drawn round over the canal. The apex is sometimes livid. *Hab.* Philippines, *Cuming*.

26. CERITHIUM CITRINUM (pl. clxxix. f. 66), *Nobis*. *C. columna*, *Kiener*, non *Sowerby*, Genera of Shells, f. 7.

Cerith. testâ flavescente, acutè pyramidalì, spiraliter striatâ, cos-



tellis rotundatis armatâ; anfractu ultimo univaricoso; aperturâ bicanaliculatâ; labio externo subquadrato, crenulato; canali obliquâ, elongatâ.

This shell, figured by Kiener under the name *C. columna* of Sowerby, is of a light yellowish colour, and has the angles of the ribs rounded off. It is quite distinct from the shell figured in the 'Genera.' *Hab.* Island of Masbate, Philippines, *Cuming*.

27. *CERITHIUM UNCINATUM* (pl. clxxx. f. 78, 79), *Gmel.* (*Murex*), p. 3542. no. 57; Wood, *Ind. test.* pl. 27. f. 150. *C. familiarum*, *C. B. Adams*, *Shells of Panama*, p. 152?

*Cerith.* testâ conico-turritâ, apicè acuminatâ, transversim striatâ, basi biserialim nodosâ, albâ, fusco marmoratâ et lineato-punctatâ; anfractibus convexiusculis, in medio tuberculis acutis armatis; aperturâ ovato-subcirculari, albâ; labro plicato, anticè producto; canali angusto, longo, uncinato.

Remarkable for the curved canal, and the prominent principal row of coloured knobs. *Guadaloup, Jamaica.*

28. *CERITHIUM ATRATUM* (pl. clxxix. f. 69). *Murex atratus*, *Born*, *Mus.* p. 324. 11. f. 17, 18. *Cerithium atratum*, *Brug.*, *Dict.* no. 12; Kiener, *Mon. Cerith.* pl. 20. f. 3.

*Cerith.* testâ turritâ, apice acutâ, varicosâ, ustulatâ; anfractuum striis transversis granosis, prope suturas bifariam tuberculatis, varicibus sparsis nodiformibus; canali truncato.

A black, stout shell, with angular whorls having three rows of beaded ribs on each, and a short, truncated canal. *Hab.* Sicily.

29. *CERITHIUM CAUDATUM* (pl. clxxix. f. 71, 72), *Nobis.*

*Cerith.* testâ *C. atrato* simili, sed magis acutâ; aperturâ magis expansâ, caudâ elongatiuseulâ.

Differing from *C. atratum* in being more acute, having a more spreading aperture and a longer caudal canal. It is also more sharply striated and sculptured. *Hab.* Guadaloup.

30. *CERITHIUM STRIATISSIMUM* (pl. clxxx. f. 86, 87), *Nobis.*

*Cerith.* testâ griseâ, nigricante, elongatâ, minutè spiraliter striatâ, nodulis minutis regularibus divisim ornatâ; anfractibus angulatis, ad angulum et ad suturam nodulis majoribus; aperturâ subovali.

The regular bead-like nodules of this grisly-coloured species are divided by the striæ, which cross the whole shell in a spiral



direction. Mr. Hanley's specimen is prettily marked by brown spots behind the nodules. Locality unknown.

31. *CERITHIUM EBURNEUM* (pl. clxxx. f. 80, 81, 82, 83), *Brug.* E. M. no. 41. *C. algicola*, *C. B. Adams*, *incluso*. *Non* *C. eburneum*, *Kiener*, pl. 10. f. 2.

*Cerith.* testâ oblongâ, turritâ, colore albâ seu variâ, plerumque maculis rufo-fuscis in lineis transversis dispositis ornatâ; anfractibus subangulatis, costis moniliformibus subæqualibus cinctis; aperturâ subrotundatâ; canali mediocri.

Shaped like several of the preceding; the typical variety is white, but another presents a pretty system of beaded ribs, with brown dots between. The whorls are scarcely angular, and the nodulous ribs nearly equal. The varieties are numerous. Fig. 81 represents *C. algicola* of Mr. C. B. Adams.

32. *CERITHIUM PLANISPIRATUM* (pl. clxxx. f. 91), *Nobis*.

*Cerith.* testâ acutâ, albâ, *C. eburneo* simili, sed anfractibus ad suturam complanatis.

This is a unique shell in the collection of Mr. Hanley; it is like *C. eburneum*, but more acute, and has a flat space above the angle. Locality unknown.

33. *CERITHIUM NOVÆ-HIBERNÆ* (pl. clxxx. f. 84, 85), *A. Adams*. *C. eburneus*, *Say*, *Kiener*, *Icon*. pl. 10. f. 2.

*Cerith.* testâ quam *C. eburneus* breviusculâ; anfractibus angulatis, in medio plicato-noduliferis, ultimo planiusculo.

A shorter shell than *C. eburneus*, with the whorls angulated by a larger row of pliciform knobs on the angle. A lateral varix gives a flatness to the last whorl. *Hab.* Florida.

34. *CERITHIUM TENELLUM* (pl. clxxx. f. 88, 89, 90), *Nobis*.

*Cerith.* testâ pyramidali, lævi, nodulis cinctâ; anfractibus angulatis, ad angulum et ad suturam moniliferis; aperturâ ovali; canali aperto.

Although beaded, this is a smooth shell, with a row of squarish beads on each whorl at the suture, another at the angle, and one below, smaller. The varieties are white, pink, and brown-speckled. *Hab.* Philippines, *H. Cuming*.

35. *CERITHIUM TORULOSUM* (pl. clxxix. f. 64; pl. clxxx. f. 92), *Linn.* (*Murex*), *Syst. Nat.* *Murex annulatus*, *Martyn.* *M. annularis*, *Gmel.*

*Cerith.* testâ albidâ, apice lividâ, costis noduliferis ornatâ; an-



fractibus ad suturam moniliferis, tumidis, anticè spiraliter bicostatis; aperturâ subexpansâ; labio externo laqueato; canali brevi. Nonnunquam occurrit varietas distorta, anfractibus medio planis, ad suturam inflatis.

This species is remarkable for its tendency to exaggerate the natural prominence of the whorls at the suture into a sort of swelled chord, leaving the greatest part of several whorls plain. In the specimen figured from Mr. Hanley's collection the monstrosity has occurred and continued for several whorls, and then the shell has commenced a return to its characteristic sculpture. *Hab.* Society Islands, *H. Cuming*.

36. CERITHIUM ECHINATUM (pl. clxxviii. f. 44), *Lamk. Anim. s. vert. Cerith. no. 11.* *C. mutatum, Sowerby, Gen. of Shells.*

*Cerith. testâ ventricosâ, crassâ, albidâ, lincis et punctis spadiceis aspersâ, spiraliter sulcatâ; anfractibus angulatis, ad angulum tuberculis aculeatis adscendentibus magnis armatis, supernè subexcavatis, ultimo magno, seriebus quinque papillis magnis obtusis armato; latere antico subcomplanato; labio externo laqueato, posticè profundè sinuato.*

This is the only species answering to Lamarck's description as having large upturned spines united with the other characters. It differs from *C. Adansoni* in the upturned spines, in the depression of the upper part of the whorls, and in the comparative smoothness of the surface. Island of Annaa, Society Islands, *H. C.*

37. CERITHIUM ADANSONI (pl. clxxviii. f. 45), *Brug. E. Met. t. 1, p. 479; Kien. Mon. Cerith. pl. iv. f. 2.*

*Cerith. testâ ventricosâ, striis crassis et papillis acutis muricatâ; anfractibus convexiusculis, in medio angulatis, albo-lutescentibus, maculis et punctis piccis aspersis; aperturâ ovatâ, obliquâ, albâ; canali profundo.*

A very ventricose shell, with the whorls divided in the upper part and armed with spines or papillæ. *Hab.* Island of Annaa, *H. Cuming*; Senegal, *H. Adanson*.

38. CERITHIUM MUNITUM (pl. clxxx. f. 93), *Nobis.*

*Cerith. testâ conicâ, turritâ, albâ; anfractibus subangulatis, pliciferis, spiraliter costatis, ultimo subtrigono, infernè bicarinato, carinis tuberculis munitis; aperturâ subtrigonâ.*

Resembling *C. balteatum*, but of a conical form, with two large



keels on the lower part of the last whorl armed with large tubercles. Island of Masbate, Philippines, *H. Cuming*.

39. *CERITHIUM SPATHULIFERUM* (pl. clxxx. f. 94), *Nobis*.

*Cerith. testâ pyramidalî, albidâ, spiraliter lineis elevatis cinctâ, longitudinaliter plicis continuis costatâ; anfractibus rectis, medio et infernè spiraliter costis spatuliferis cinctis, ultimo costis aculeatis tribus, tuberculis spatuliformibus; aperturâ obliquè ovali, posticè canaliculatâ, anticè canali producto; labio externo angulatum aculeato.*

This white species is remarkable for the broad spatulæ into which the spiral keels are formed. The whorls have straight sides, with a belt of spatulæ in the middle, and one below close to the suture of each: in the last whorl the spatulate keels are more fully developed. The only specimen known is from the late Mr. Sowerby's collection.

40. *CERITHIUM UMBONATUM* (pl. clxxx. f. 95), *Nobis*.

*Cerith. testâ pyramidalî, acutâ, clavatâ, fusco variegatâ; anfractibus prope suturam angulatis, ad angulum noduliferis, ultimo magno; aperturâ elevatâ; labio interno posticè uniplicato; labio externo crasso, expanso.*

This shell is remarkable for the greater breadth of the last whorl and aperture. Mr. Cuming's collection. Jamaica.

41. *CERITHIUM ARMATUM* (pl. clxxix. f. 68; pl. clxxx. f. 96), *Philippi*, Abbild. pl. i. f. 9.

*Cerith. testâ acuminatâ, variegatâ; anfractibus gradatis, planiusculis, spiraliter moniliferis, prope suturam nodulis magnis prominentibus armatis; aperturâ subquadratâ; labio interno posticè uniplicato.*

A very pretty species, remarkable for the prominent row of large tubercles on the upper angle of the whorls. *Hab.* Island of Ticao, Philippines, *Cuming*.

42. *CERITHIUM RUPELLII* (pl. clxxix. f. 65), *Philippi*, Abbild. pl. i. f. i.

*Cerith. testâ elongatâ, fusco variegatâ, costis noduliferis crebris armatâ; aperturâ breviusculâ; canali brevi; labio externo subincrassato, crenulato.*

A graceful shell, spotted with brown and ornamented by beaded ribs, which are angulated in the centre. Locality unknown. Mr. Cuming's collection.



43. *CERITHIUM NIGRO-PUNCTATUM* (pl. clxxx. f. 97), *Nobis*.

Cerith. testâ elongatâ, acutâ, flavidâ, nodulis nigris in seriebus subdistantibus ornatâ; aperturâ parvâ, subquadratâ; canali aperto.

Rather long and sharp, with several rows of black nodules on each whorl. Mr. Hanley's and Mr. Metcalfe's collection. Locality unknown.

44. *CERITHIUM SUTURALE* (pl. clxxviii. f. 52, 53), *Philippi*, Abbild. *Cerith.* t. i. f. 4.

"Cerith. testâ turritâ, plicis longitudinalibus, lineis elevatis transversis, nodisque acutis muricatâ, fulvâ, ad suturam nigrâ, granulis biserialibus in cingulo nigro; plicis circa octo in quovis anfractu, medio acutè angulatis; liris granulatis in basi; aperturâ ovatâ; labro subeffuso, intus sulcato; canali brevi."

The angulated plicæ on the whorls are comparatively regular and distinct, and the suture has a line of black upon it, otherwise this species is not very different from *C. dialeucum*. Mr. Cuming has it from the same place, namely, Island of Ticao, Philippines.

45. *CERITHIUM DIALEUCUM* (pl. clxxx. f. 98, 99), *Philippi*, Abbild. pl. i. f. 5, var.; *Phil.* Abbild. pl. i. f. 4.

"Cerith. testâ turritâ, plicis longitudinalibus circa novem et decem, liris elevatis transversis, nodisque subacutis muricatâ, purpureo; rufâ, liris transversis albis in basi frequentibus granulatis; aperturâ ovatâ; labro intus sulcato; canali breviusculo."

A pretty species, with large distant plicæ crossed by granular ridges, the interstices being coloured with a darker tint. *Hab.* Island of Ticao, Philippines.

46. *CERITHIUM FENESTRATUM* (pl. clxxx. f. 100), *Nobis*.

Cerith. pyramidalî, varicosâ, albâ, interstitiis fuscis; anfractibus longitudinaliter plicatis, spiraliter striatis, interstitiis depressis; aperturâ rotundâ; canali distincto.

The hollow intervals between the longitudinal plicæ and spiral elevated striæ, give a cancellated appearance to this species, which is in Mr. Cuming's collection. Locality unknown.

47. *CERITHIUM TURRITUM* (pl. clxxx. f. 101), *Nobis*.

Cerith. testâ elevatâ, pallidè fulvâ, cancellatâ; anfractibus subrotundis, suturâ excavatâ; aperturâ brevî; canali rubro, truncato, recurvo.

Of a pale yellowish-brown colour, strengthened at the recurved



canal and on the varices; this species has its whorls cancellated by curved ribs crossed with elevated lines (the upper ones most strongly), and the whorls are separated by a hollow suture. Island of Bureas, Philippine, *H. Cuming*.

48. *CERITHIUM SEROTINA* (pl. clxxx. f. 102), *A. Adams*.

*Cerith. testâ elongato-turritâ, pallidè fulvâ; anfractibus numerosis, medianis subventricosis, longitudinaliter plicatis, spiraliter striatis, ultimo subcontracto, ad aperturam expanso; aperturâ circulari; labio externo expanso; canali contracto, brevi, recto.*

A beautifully formed turreted shell, a little swelled in the centre, with numerous short whorls, the last of which is contracted on one side, but expanded towards the aperture. There is a peculiar contraction close to the canal, at the lower part of the body-whorl. In Mr. Cuming's collection, from Van Diemen's Land.

49. *CERITHIUM RHODOSTOMA* (pl. clxxx. f. 103), *A. Adams*.

*Cerith. testâ C. serotinae simili sed breviusculâ; anfractu ultimo ad aperturam vix expanso.*

A shorter shell than *C. serotina*, with fewer whorls and the last not so expanded at the aperture. The shell is in Mr. Cuming's collection; probably from the same locality as *C. serotina*.

50. *CERITHIUM ROSTRATUM* (pl. clxxx. f. 104), *Nobis*.

*Cerith. testâ fusiformi, tenui, pallidâ, costatâ, inter costas linearum rubro-punctatâ; anfractibus in medio ventricosis, ultimo contracto; aperturâ rotundâ; labio externo expanso, varicoso; canali producto, nigro.*

This pretty little fusiform species has the middle whorls swelled and ribbed with little red linear spots between the ribs. The last whorl is contracted, but the outer lip is expanded and varicose. The canal is long, and tipped with black. The typical variety is in Mr. Cuming's collection, from the Philippines. That collection also contains a specimen from Lord Hood's Island, which resembles it, excepting that the canal is not produced; the mouth is not fully formed.

51. *CERITHIUM RAVIDUM* (pl. clxxx. f. 105), *Philippi*, Abbild. *Cerith. t. i. f. 8.*

*Cerith. testâ fusiformi, fuscâ, fasciatâ; anfractibus costatis et spiraliter acutè sulcatis, ultimo latâ; canali elongato, paululum recurvo, truncato; aperturâ expansâ; labio externo univaricoso.*

Taken by Mr. Cuming in sandy mud at Cagayan, Misamis,



Island of Mindanao, Philippines, and remarkable for the fusiform shape produced by the size of the last whorl and the length of the canal.

52. *CERITHIUM FUSIFORME* (pl. clxxx. f. 106, 107), *Nobis*.

Cerith. testâ fusiformi, *C. balteato* simili, sed anfractibus in medio angulatis, plicis albis, canali obliquâ.

A more fusiform shell than *C. balteatum*. The whorls are angulated in the centre. A pretty reddish-brown colour is interrupted by the white plicæ. Philippines, *H. Cuming*.

53. *CERITHIUM MUSCARUM* (pl. clxxx. f. 108, 109, 110), *Say*, American Conchology, pl. 59. f. 2.

Cerith. testâ elongato-turritâ, albidâ, longitudinaliter nodosoplicatâ, inter plicas spiraliter lineatim nigro punctatâ; anfractibus ventricosis, ultimo subtus unicarinato; aperturâ subovali; canali torto, subproducto; labio externo angulato.

This beautiful species is distinguished by the spiral rows of blackish or reddish dots between the ribs and a keel at the lower part of the whorls. Lord Hood's Island, *Mr. Cuming*; south shores of Florida, *Say*.

54. *CERITHIUM PLANUM* (pl. clxxxi. f. 111, 112, 113.), *Anton*. Philippi. Abbild. t. 1. f. 18.

Cerith. testâ pupæformi, albâ vel castaneo fasciatâ, spiraliter striatâ; anfractibus numerosis, rectis, longitudinaliter fortè plicatis; apice livido; ultimo anfractu ad basin spiraliter unicarinato, excavato; canali recto; aperturâ subtrigonâ.

The numerous plicated whorls are straight-sided, the last being girt with a spiral ridge, under which it is excavated. The canal is straight, and nearly closed. Philippines, *H. Cuming*.

55. *CERITHIUM SALEBROSUM* (pl. clxxxi. f. 114, 115), *Nobis*.

Cerith. testâ elongato-turritâ, scabrosâ, albâ, nonnunquam fusco variegata; anfractibus pliciferis et granulatione costatis, ad suturam elevatis, ultimo internè bicarinato; canali obliquo.

The sculpture resembles that of *C. asperum* in the *Vertagus* group; it is rough and rasp-like. The whorls are elevated near the sutures, the last having two beaded keels. *Hab.* Lord Hood's Island.

56. *CERITHIUM BALTEATUM* (pl. clxxxi. f. 116, 117), *Philippi*, Abbild. t. 1. f. 10.

Cerith. testâ fusiformi, turritâ, albâ, rubro vel fusco fasciatâ,



spiraliter striatâ; anfractibus numerosis plicatis subventricosis, ultimo infernè bicarinato; canali recto.

The shape is more fusiform than in *C. planum*, and the whorls more ventricose. The lower part of the last whorl is slightly bicarinated, and more gradually terminated. Philippines, *H. Cuming*.

57. *CERITHIUM CORONATUM* (pl. clxxxi. f. 118), *Nobis*.

Cerith. testâ *C. balteato* simili, sed canali validiore, anfractibus prope suturam nodulis albis prominentibus coronatâ.

This is like *C. balteatum*, but has a row of white tubercles on the whorls near the suture. Philippines, *H. Cuming*.

58. *CERITHIUM ERIENSE* (pl. clxxxi. f. 119), *Valenciennes*.

Cerith. testâ nigrâ, elevatâ, mitræformi; anfractibus costis granuliferis quatuor cinctis; suturâ excavatâ; aperturâ brevi, albâ.

A black, long shell, with four granulated ribs on each whorl. Honduras Bay, *M. Dyson*. Mr. Cuming's collection.

59. *CERITHIUM CORALLIUM* (pl. clxxix. f. 63), *Kiener*, Sp. de Coq. Cerith. p. 32, pl. 8, f. 3.

Cerith. testâ elongatâ, fusco-nigrescente, longitudinaliter plicatâ; suturâ excavatâ; anfractibus spiraliter tricostatis costis noduliferis; aperturâ ovali; labio externo crasso denticulato, labio interno posticè uniplicato; canali brevissimo.

A long, granulated, ribbed, dark-coloured shell, consisting of many whorls, which are separated by a grooved suture; three grained, spiral ribs cross the longitudinal plicæ. Ilo Ilo, Island of Panay, Philippines, *H. Cuming*.

60. *CERITHIUM GRANOSUM* (pl. clxxx. f. 123, 124), *Kiener*, Sp. de Coq. Cerith. pl. 4. f. 3.

Cerith. testâ *C. coralli* simillimâ, sed magis conicâ, brevior, aperturâ magis rhomboideâ.

If this be really distinct from *C. corallium*, the distinction consists in the shorter and more conical form, and in the greater angularity of the aperture. Australia.

61. *CERITHIUM PICTUM* (pl. clxxx. f. 121), *Wood*, Ind. test. Supp. pl. 5. f. 2-4. *C. heteroclites*, *Lamk.* *Cerith.* no. 24?

Cerith. testâ solidâ, latâ, albâ, fusco-nigrescente pictâ, spiraliter striatâ; anfractibus noduloso-plicatis, angulatis; aperturâ bicaneliculatâ, subrotundâ.

This shell is slightly striated, rather ventricose, and beautifully painted with dark brown. Locality unknown.



62. CERITHIUM DUBIUM (pl. clxxxi. f. 120), *Nobis*.

Cerith. testâ pyramidali, fulvâ; anfractibus angulatis, ventricosis, ad angulum pliciferis, subtus ad suturam moniliferis, ultimo subtus unicarinato; carinâ rubro punctatâ; aperturâ subquadratâ; canali breviusculo.

We describe this provisionally, from a single and not quite complete specimen in Mr. Cuming's collection from Van Diemen's Land. The whorls are angulated and pliciferous in the centre, beaded at the suture; the last with a beaded keel, red spots between the beads.

63. CERITHIUM NOVÆ-HOLLANDIÆ (pl. clxxviii. f. 54), *A. Adams*, MS.

Cerith. testâ pyramidali, ad suturam, aperturam et apicem albâ, ad medium anfractuum fusco variegatâ; anfractibus ad suturam inflatis et nodulosis, medio spiraliter striatis et costis interruptis nodulosis cinctis; aperturâ paululùm elevatâ, supernè uniplicatâ, anticè subangulatâ; canali brevi, obliquo.

The suture of this shell is bordered by a white, swelled, nodulous band, and the other part of the whorls is girt by two or three beaded and spotted ribs, only one of which is visible in the upper whorls. New Holland, Mr. Cuming's collection.

64. CERITHIUM VULGATUM (pl. clxxviii. f. 43; pl. clxxix. f. 67), *Brug.*, E. M. no. 13. *Strombus nodosus*, *Schrœt.* *Murex alucoides*, *Oliv.* *Cerithium thymetus*, *Meusch.*, *fid. Mörch.* *C. vulgatum* variis spinosa, tuberculata, nodulosa, plicata, gracilis.

Cerith. testâ turritâ, plerumque ventricosâ, griseâ vel fulvâ, nigro vel fusco variegatâ, plerumque obtusè echinatâ, spiraliter striatâ; anfractibus tuberculatis, super angulum subexcavatis; aperturâ magnâ, ovali; canali brevi, aperto.

The species is common in the Mediterranean, and it is with difficulty that one recognizes the identity between the several varieties, particularly the extremely narrow one, f. 67.

65. CERITHIUM SUBNODOSUM (pl. clxxviii. f. 47), *A. Adams*.

Cerith. testâ elevatâ, solidâ, pallidâ, fusco variâ; anfractibus acutè plicato-nodulosis, striatis; aperturâ ovali; margine simplici.

This shell nearly resembles the narrower varieties of *C. vulgatum*, but it is of a different texture and lighter colour. The specimen figured is in Mr. Cuming's collection from New Holland.



66. *CERITHIUM MINUTUM* (pl. clxxxi. f. 122), *Philippi*, Enum. Moll. Sic.

*Cerith*. testâ parvâ, tenui, striatâ, echinatâ, albâ, castaneo variegatâ; anfractibus angulatis, nodulis acutis cinctis.

This little shell differs so much in texture, form, and size from *C. vulgatum*, that we cannot refrain from following those who have considered it distinct. Mediterranean.

67. *CERITHIUM MEDITERRANEUM* (pl. clxxxi. f. 125, 131, 132, 133; pl. clxxviii. f. 50), *Desh.*, 2nd ed.; *Lamk.*, An. s. vert. t. 9, p. 292 *nota*. *C. fuscatum*, *Costa*, *Philippi*, *non Linn.*

*Cerith*. testâ parvâ, solidâ, subventricosâ, lævigatâ, leviter striatâ, griseo-viridescente, fusco-rubescente minutè variegatâ; anfractibus ad angulum nodulosus, ultimo magno versus aperturam contracto; aperturâ parvâ, posticè margine excavato incrassato rubro-lineato. Occurrit var. *enode*, *rugosa*.

Much smoother than *C. vulgatum*, less tuberculated, and with the aperture of a different form. Mediterranean. Mr. Hanley's cabinet. A variety occurs which is destitute of the angular knobs.

68. *CERITHIUM MUSICUM* (pl. clxxxi. f. 130), *Nobis*.

*Cerith*. testâ parvâ, ventricosâ, nigro-lineatâ; anfractibus angulatis, acutè tuberculatis, ultimo magno; aperturâ magnâ, intus flavidâ.

This species differs from *C. Mediterraneum* in the large space occupied by the last whorl; it is smooth, and marked across by neat lines, as if ruled for music. Mr. Hanley and Mr. Cumming have the species, which is from Cape de Verd.

69. *CERITHIUM OCELLATUM* (pl. clxxix. f. 59, 77), *Brug.*, Dict. E. M. *Cerith*. 43. *C. irroratum*, *Gould*. *C. interruptum*, *ibid.*

*Cerith*. testâ conico-turritâ, nigrâ, tuberculis et punctis albis depressis ornatâ; anfractibus angulatis, ultimis ventricosis; aperturâ subquadratâ; canali brevi, lato, truncato.

A black, ventricose shell, having tubercles, and between the striæ and tubercles rows of depressed white pits. Gulf of California, *Gould*; Gallapagos, *MS. label*.

70. *CERITHIUM ADUSTUM* (pl. clxxviii. f. 48), *Kiener*, Sp. de Coq. p. 37. no. 26; pl. 13. f. 2. *non C. maculosum*, *Kiener*.

*Cerith*. testâ ventricosâ, obscurè nigrescente variegatâ, striatâ;



anfractibus vix tuberculatis, prope suturam tumidis; aperturâ magnâ, posticè contractâ; labio interno plicâ unâ magnâ.

A thick, rather smooth, ventricose, obscurely clouded species, with the upper part of the aperture contracted, and a large fold at the back of the inner lip. Gallapagos Island, *H. Cuming*.

71. CERITHIUM NEBULOSUM (pl. clxxix. f. 60), *Nobis*. *C. maculosum*, *Kiener*.

Cerith. testâ *C. adusto* simili, sed tuberculis magnis acutis armatâ.

In form like *C. adustum*, but having large acute tubercles on the angle of the whorls, and two rows on the middle of the last whorl. *Hab.* Gallapagos Island, *H. Cuming*. The name *C. maculosum* is occupied by a species belonging to the *Vertagus* group.

72. CERITHIUM CÆRULEUM (pl. clxxix. f. 61, 62), *Nobis*. *C. tuberculatum*, *Lamk.*; *Kiener*, non *Linn.*

Cerith. testâ crassâ, ventricosâ, griseâ, nigro maculatâ, tuberculis magnis rotundatis; anfractibus angulatis, ultimo magno; labio externo crasso.

This very thick, roughly tuberculated, bluish species is spotted with black. It is from the Red Sea, and quite distinct from *C. tuberculatum* of Linnæus.

73. CERITHIUM GUINÆICUM (pl. clxxxi. f. 126, 127), *Phil. Abbid.* t. 1. f. 13.

Cerith. testâ ventricosâ, minutè striatâ, albâ, epidermide fuscâ viridescente partim indutâ; anfractibus ad suturam tumidis, plicis magnis undulatis, interstitiis fusco lineatis.

Nearly all the colour is contained in the epidermis, which clothes the lower part of the whorls, leaving the upper part white, with very few brown spots or lines. The whorls are tumid near the sutures, and undulated with large tubercles. *Hab.* Coast of Guinea, *L'Argillière*; Lord Hood's Island, *H. Cuming*.

74. CERITHIUM LITTERATUM (pl. clxxxi. f. 128, 129), *Born*, *Ind. Mus. Cæs.* p. 323. t. 11. f. 14, 15.

Cerith. testâ ventricosâ, conicâ, granoso-striatâ, albâ, griseo vel rubro punctis quadratis tessellatâ; anfractibus prope umbones angulatâ et tuberculis armatâ, ultimo magno; aperturâ magnâ, subpyriformi, posticè angulatâ, anticè rotundatâ; labio interno uniplicato, labio externo subexpanso; canali brevi.

The well-known West Indian shell, tessellated with square



reddish or brown spots, and having a row of pointed tubercles on the upper part of the whorls, close to the suture.

75. *CERITHIUM SEMIFERRUGINEUM* (pl. clxxxix. f. 75, 76), *Lamarck*. *C. tuberculatum*, *Sowb.* Gen.

*Cerith. testâ C. litterato* simili, sed lævigatâ, magis tuberculatâ, colore variegatâ.

Although this species is also West Indian, and its form generally resembling that of *C. litteratum*, it differs in being smooth between the tubercles, which are more numerous and prominent; it is not tessellated, but the colours are laid on in irregular patches.

76. *CERITHIUM PIPERITUM* (pl. clxxxi. f. 136, 137), *Nobis*. *C. punctatum*, *Brug.* E. Met. no. 40; *Lamk.* no. 34; *Kien. Sp. de Coq.* p. 48. no. 35. pl. 16. f. 14.

*Cerith. testâ turrîtâ, varicosâ, transversim striatâ, albâ, rubro aut fusco punctatâ; anfractibus medio striâ obsoletè tuberculatâ instructis, ultimo basi lineâ albâ cincto.*

A pretty little species, with black or dark brown spots on slightly raised rounded striae. *Hab.* Senegal, *Lam.* Smooth variety. *Philippines, Cuming.* The name *punctatum* was pre-occupied by a Linnæan species.

77. *CERITHIUM TESSELLATUM* (pl. clxxxi. f. 133, 134), *Nobis*.

*Cerith. testâ ventricosâ, brevi, albâ, punctis quadratis fasciatim tessellatâ, minutè granulatâ; varicibus albis; anfractibus subventricosis, ultimo magno; aperturâ ovali; labio interno violascente, labio externo crenulato incrassato.*

A beautiful, small, ventricose, minutely granulated white shell, tessellated with rows of square reddish-brown spots. Mr. Cuming's collection from Darnley's Island, Australia, *Jukes*.

78. *CERITHIUM DORSUOSUM* (pl. clxxxi. f. 138, 139, 140), *A. Adams, ined.*

*Cerith. testâ crassâ, dorso elevatâ, subventricosâ, subconicâ, leviter striatâ, nigro vel griseo maculatâ; anfractibus planulatis; aperturâ bicanaliculatâ, ad spiram elevatâ, subtrigonâ; labio interno posticè calloso; canali brevissimo.*

Thick, conical, ventricose, and remarkable for the elevation of the dorsal part of the whorls. The aperture is rather trigonal, and elevated towards the spire. Misamis, Island of Mindanao, *Philippines, H. Cuming.*



79. CERITHIUM OBESUM (pl. clxxxi. f. 141, 142), *Nobis*.

Cerith. testâ crassâ, ventricosâ, striatâ, nigro vel griseo maculatâ, ad suturas undulatâ; aperturâ magnâ, subtrigonâ; labio interno anticè brevissimo, posticè calloso; canali brevissimo.

Much more ventricose than *C. dorsuosum*, the whorls undulated near the suture, and the back not so remarkably raised. *Hab.* Island of Bohol, Philippines, *Cuming*.

80. CERITHIUM SCULPTUM (pl. clxxxii. f. 144, 145), *Nobis*.

Cerith. testâ parvâ, solidâ, ventricosâ, fusco-nigrescente variegatâ, spiraliter costellis planulatis, crenulatis, et interstitiis linearibus cinctâ; anfractibus rotundatis, ultimo magno; aperturâ rotundatâ; canali breve; labio externo crenulato fimbriato.

A small, solid, darkly variegated, grooved shell, of a rather conical form, with rounded whorls. Locality unknown.

81. CERITHIUM LUTUOSUM (pl. clxxxii. f. 146, 147, 148), *Menke*. *C. mutabile*, *C. B. Adams*, inclusio.

Cerith. testâ parvâ, brevi, griseâ, nigro variegatâ, ventricosâ, longitudinaliter et spiraliter granosâ; aperturâ subrotundâ; canali brevissimo.

A very little, black, mottled, short, ventricose shell, granulated by the crossing of sulci in each direction. Jamaica. Fig. 147 is from a small shell in Mr. Hanley's collection, which may possibly be distinct. Fig. 148 represents *C. mutabile*.

82. CERITHIUM SAYI (pl. clxxxii. f. 149, 150, 151), *Menke*. *C. nigra*, *Totten*, *Silliman's Journ.* xviii. 352. f. 8. *C. reticulatum*, *Totten*, *Silliman's Journ.* xxvi. 369. pl. 1. f. 7. *C. Iota*, *Gould*?

Cerith. testâ, parvâ, subconicâ, brevi, nigrâ, cancellatâ, costis longitudinalibus et striis elevatis cancellatâ, suturâ excavatâ.

Very small, black, conical, cancellated by longitudinal ribs and spiral raised lines. Continent of North America. *C. Iota*, *Gould*, is represented by figure 151.

83. CERITHIUM INCISUM (pl. clxxxii. f. 152), *Nobis*.

Cerith. testâ elongatâ, spiraliter inciso-sulcatâ, fusco-viridescente, nigro maculatâ; anfractibus subventricosis, gradatim crescentibus, propè suturam angulatim subelevatis; aperturâ magnâ; labio interno posticè uniplicato, anticè in canalem distinctum terminato; labio externo laqueato.

Mr. *Cuming*'s collection contains several specimens from Australia, and one collected by himself in the Philippines. It is a



shell with rounded whorls, crossed by deeply cut grooves. The aperture is very remarkable in form; it has a posterior canal, formed by a prominent fold, and a very distinct anterior canal, the columella terminating abruptly. The aperture is expanded and fringed; colour greenish, with black spots.

84. *CERITHIUM CURTUM* (pl. clxxxii. f. 153, 154), *Nobis*.

*Cerith. testâ C. incisum* simili, sed spirâ longè brevior; anfractibus paucis.

The specimen is in Mr. Metcalfe's collection, and may possibly be a variety of *C. incisum*; but the spire is so much shorter in proportion, that we are compelled to give it a separate name.

85. *CERITHIUM GALLAPAGINIS* (pl. clxxxii. f. 155, 156), *A. Adams* (*Tympanotus*).

*Cerith. testâ subovali, fusco-nigrescente, sulcis spiralibus et costis longitudinalibus moniliferis minutè granulatâ; anfractibus octo gradatim crescentibus subangulatis; aperturâ subovali; canali brevissimo.*

A small, darkly coloured species, brought from the Gallapagos by Mr. Cuming. It is granulated by ribs and grooves in both directions; the middle whorls are rather angulated.

86. *CERITHIUM BREVICULUM* (pl. clxxxi. f. 143), *Sowerby*, *Genera of Shells, Cerith. f. 1.*

*Cerith. testâ brevissimâ, ventricosâ, spiraliter striatâ, seriatim tuberculatâ, nigrâ vel griseâ, nigro maculatâ; spirâ brevi; aperturâ magnâ; labio externo acutè denticulato, ultimo anfractu infernè varicoso.*

A very short, ventricose, tuberculated shell, brought by Mr. Cuming from the Philippines, and occurring in other collections.

87. *CERITHIUM METCALFEI* (pl. clxxxii. f. 157, 158), *Nobis*.

*Cerith. testâ ventricosâ, brevi, spiraliter striatâ, seriatim tuberculatâ, griseâ, ad apicem flavidâ, tuberculis nigrescentibus, ad dorsum elevatâ; aperturâ magnâ; labio externo crasso, albo, crenulato.*

Resembling *C. breviculum*, but of a rather different shape. The back is raised, and the aperture is thickened within. The only specimen we have seen is the one figured from Mr. Metcalfe's collection.

88. *CERITHIUM BORNII* (pl. clxxxii. f. 175), *Nobis. Cerith. tuberculatum, Born, Ind. Mus. Cæs. non Linn.*



Cerith. testâ nigrâ vel griseo-nigrescente, crassâ, brevi, ventricosâ, striatâ; anfractibus tuberculorum magnorum seriebus duabus armatis; aperturâ magnâ; labio interno brevissimo; canali brevissimo.

This is not the *S. tuberculatus* of Linnæus. The upper whorls have two rows of large, distant tubercles. Island of Seychelles.

89. CERITHIUM MORUS (pl. clxxxii. f. 159, 160, 161), *Lamk.* Hist. Nat. An. s. vert.

Cerith. testâ brevi, crassâ, ventricosâ, seriebus tribus tuberculatâ, nigrâ vel fusco-nigrescente, vel griseâ nigro maculatâ; spirâ brevi; anfractibus paucis; aperturâ subovali; labio externo crasso, crenulato; canali brevissimo.

The light-coloured shell, fig. 159, is from Mr. Metcalfe's collection, and slightly resembles the *Strombus tuberculatus* of Linnæus. The variety, fig. 161, is Mr. Hanley's. The dark shell, fig. 160, may be considered typical; dark tubercles, corresponding in form and sculpture with *C. morus* of Bruguière and Lamarck. *Hab.* Red Sea and Madagascar.

90. CERITHIUM TUBERCULATUM (pl. clxxxii. f. 162, 164), *Linnæus*, Syst. Nat. no. 544. *C. carbonarum*, *Philippi*.

Cerith. testâ breviusculâ, striatâ, nigrâ, vel griseâ nigro maculatâ; tuberculis nigris seriatim ornatâ.

The tubercles are distinct and nearly black, with sharp striæ between them. Fig. 162 is from the original specimen in Linnæus's collection. The better preserved specimen, with more irregularly coloured beading, was obtained by Mr. Cuming at the Island of Panay, Philippines.

91. CERITHIUM MONILIFERUM (pl. clxxxii. f. 163, 165), *Kiener*, Sp. Coq. pl. 16. f. 3.

Cerith. testâ ovali, subventricosâ, solidâ, ad apicem gradatim attenuatâ, tuberculis ovatis elevatis in seriebus tribus depositis, interstitiis striatis; aperturâ ovali; labio externo crenulato, labio interno utrinque plicato.

Of a regular, oval form, tapering at the end, and distinguished from *C. tuberculatum* by the depth of its tubercles, which are arranged in rows so as to form ribs in both directions, and by the striæ between the ribs. Collected at Ilo Ilo, Island of Panay, Philippines, by Mr. Cuming.

92. CERITHIUM VARIEGATUM (pl. clxxxii. f. 166, 167, 168, 169), *Quoy*, Voy. de l'Astr. pl. 55. f. 17.



Cerith. testâ pupæformi, irregulari, breviusculâ, irregulariter moniliferâ, variè pictâ; anfractibus medio subventricosis; aperturâ plerumque contractâ, albâ vel purpureâ.

Rather variously coloured, pupæform, irregularly beaded, with the last whorl and aperture generally contracted, sometimes purple. Mr. Cuming has many varieties from the Philippines.

93. CERITHIUM TRAILLII (pl. clxxxii. f. 173, 174), *Nobis*.

Cerith. testâ *C. variegato* simili, sed solidiore, magis pyramidalis, labio externo crasso.

This is like some varieties of *C. variegatum*, but it is more regularly formed and pyramidal, and does not show the same tendency to contract in the lower whorls. Singapore, *M. Traill*.

94. CERITHIUM PETROSUM (pl. clxxxii. f. 171, 172), *Wood*, Supp. pl. 4. f. 9.

Cerith. testâ *C. variegato* simili, sed ventricosâ, anfractibus tuberculatis.

Much shorter and more ventricose than *C. variegatum*, with large tubercles on the upper part of the whorls. East Indian Archipelago.

95. CERITHIUM INFLATUM (pl. clxxxii. f. 170), *Quoy et Gaimard*, Voy. de l'Astr. t. 3. p. 130, pl. 55. f. 10; *Kien*. pl. 7. f. 1; Cerith. *Billeheusti*? *Petit*, Journ. de Conch.

Cerith. testâ ovato-ventricosâ, tuberculosâ, subplicatâ, tenuissimè transversim striatâ, nigrâ; aperturâ amplâ, subrotundâ, albo et fusco striatâ; canali brevi, truncato.

The figure is copied from Kiener. Africa.

96. CERITHIUM FERRUGINEUM (pl. clxxxiii. f. 176, 177, 178), *Say*, Amer. Conch. pl. 49, f. 2; *C. variabile* et *C. versicolor*, *C. B. Adams*, inclusis?

Cerith. testâ parvâ, fuscâ, longitudinaliter plicatâ, spiraliter nodulis nigrescentibus cinctâ; aperturâ parvâ; labio externo crasso.

A rather narrow, but solid shell, with darkly coloured tubercles in spiral rows on the longitudinal plicæ. *Hab.* America. We cannot distinguish the species of the other American author, excepting as varieties. The specimens, fig. 176 and 178, are in Mr. Hanley's collection. Fig. 177, from Mr. Cuming's collection, represents *C. versicolor*, *C. B. Adams*.

97. CERITHIUM PATULUM (pl. clxxix. f. 74), *Nobis*.

Cerith. testâ irregulariter varicosâ, dorso elevatâ, brevi, fuscâ;



anfractibus seriebus duabus tuberculatis; aperturâ albâ, patulâ; labio interno uniplicato.

Resembling *carbonarum*, but a more solid shell, with the aperture spread, and the canal longer. Ilo Ilo, Island of Panay, Philippines, *H. Cuming*.

98. *CERITHIUM ALTERNATUM* (pl. clxxix. f. 70, 73, and pl. clxxxiii. f. 179), *Nobis*.

Cerith. testâ subventricosâ, albâ seu alternatim albo et fusco fasciatâ; anfractibus subangulatis, costis nodulosis et interstitiis striatis cinctis; aperturâ ovali; canali brevi; labio interno plerumque violaceo.

This pretty species is either all white, or it has white beaded ribs, with brown bands in the interstices. *Hab.* Island of Ticao, Philippines, *H. Cuming*.

99. *CERITHIUM PURPURASCENS* (pl. clxxxiii. f. 182-186), *Nobis*.

Cerith. testâ ventricosâ, nodulis acutis armatâ, maculis seriatim variegatâ; anfractibus angulatis, ad angulum tuberculis acutis magnis, ad suturam et in medio tuberculis parvis rotundatis cinctis, ultimo ventricoso; aperturâ magnâ; labio interno medio purpureo, posticè uniplicato, labio externo uncinato.

The form is rather ventricose, with angulated whorls. The spiral ribs are armed with sharp nodules, behind each of which, in some varieties, there is a brown spot. The aperture is large, with a purple spot on the columellar lip. The brown and black-spotted, or lineated varieties, are Mr. Cuming's, from the Philippines; the red-spotted and black varieties are Mr. Hanley's.

100. *CERITHIUM NITIDUM* (pl. clxxxiii. f. 180, 181), *Nobis*.

Cerith. testâ *C. purpurascenti* simili, sed crassiore, angustiore, nodulis depressis; colore fusco, rubescente nonnunquam lineato.

Lip ventricose, more solid, and with the nodules more depressed and moniliform than *C. purpurascens*. Mr. Cuming collected the species at the Island of Bohol, Philippines. Mr. Hanley and Mr. Metcalfe also have specimens.

101. *CERITHIUM SPLENDENS* (pl. clxxxiii. f. 191), *Nobis*.

Cerith. testâ pyramidali, acutâ, grisescente; anfractibus angulatis, costis acutè noduliferis et nigro-punctatis cinctis; canali medioeri.

Of an acute pyramidal form, with sharply armed ribs, which are marked between the nodules with black or dark brown spots. The



specimen figured is Mr. Hanley's. Mr. Cuming also has the species from St. Nicholas, Island of Zebu, Philippines.

102. *CERITHIUM RUBUS* (pl. clxxxiii. f. 188, 189), *Martyn* (Clava), Univ. Conch. pl. 28. *Murex serratus*, *Wood*, Ind. test. pl. 28. f. 158. *C. rubus*, *Desh.*

*Cerith. testâ fusiformi, fusco-grisescente interlineatâ, costis spiralibus nodulis elevatis acutè angulatis armatâ.*

The spiral and generally white ribs of this species are armed with produced points, almost amounting to spines.

103. *CERITHIUM EXIMIUM* (pl. clxxxviii. f. 192), *Nobis.*

*Cerith. testâ quam C. rubus magis elevatâ, ultimo anfractu subcontractâ, colore pallidiore.*

More elevated than *C. rubus*, with the last whorl more contracted; the colour is paler, but the sculpture is similar. From Ceylon, *Layard*. Cuming's collection.

104. *CERITHIUM MITRÆFORME* (pl. clxxxiii. f. 190), *Nobis.*

*Cerith. testâ subfusiformi, fusco interlineatâ, costis minutè moniliformibus albis cinctâ, ad suturam albo fasciatâ; aperturâ ovali; canali lato, truncato.*

Shaped like *C. rubus*, but more finely and less acutely sculptured, having a white band close to the suture. The only specimen is in Mr. Cuming's collection. Locality unknown.

105. *CERITHIUM GEMMA* (pl. clxxviii. f. 51), *Nobis.*

*Cerith. testâ breviusculâ, albâ, nigro super costas maculatâ, ad apicem lividâ; anfractibus spiraliter bicostatis; costis nodulis acutis armatis, varicibus albis; aperturâ parvâ, ovali, albâ; canali brevi.*

This beautiful little shell is in Mr. Cuming's collection, from Puteao, Island of Luzon, Philippines. It has sharply beaded spiral ribs, some of which are defined in squares by black spots.

106. *CERITHIUM LEMNISCATUM* (pl. clxxxiii. f. 187), *Quoy*, Voy. Astr. pl. 54. f. 16-18.

*Cerith. testâ breviusculâ, albâ, castaneo fasciatâ; anfractibus numerosis angulatis, acutè tuberculatis, post angulum fasciatum; labio externo crasso.*

This species, in form resembling *C. ferrugineum*, has the tubercles sharp, and besides two brown bands on the lower part, has a broad band on the upper part, close to the suture. Mr. Cuming has the species from St. Nicholas, Island of Zebu, Philippines. Mr. Hanley also has a specimen.



107. *CERITHIUM RUGOSUM* (pl. clxxxiii. f. 195, 196, 197), *Wood*, Suppl. pl. 4. f. 10. *C. breve*, *Quoy*, *Voy. Ast.* pl. 54. f. 9-12.

*Cerith. testâ brevisculâ, crassâ, irregulariter varicosâ, costis tuberculatis obtusis et plicis longitudinalibus quasi cancellatâ, griseâ vel albâ, nigro vel rubro variegatâ.*

Short, coarsely tuberculated, and as it were cancellated, irregularly varicose, thick, variegated. Philippines.

108. *CERITHIUM VITTATUM* (pl. clxxxiii. f. 194), *Nobis*.

*Cerith. testâ crassâ, brevi, albo et rufo alternatim spiraliter fasciatâ, longitudinaliter plicatâ, spiraliter striatâ; aperturâ parvâ; labio externo crasso tæniato.*

This species is spirally banded by ribbons of alternate white and brown; it is short, thick, longitudinally ribbed and spirally striated. The aperture is small, with the outer lip thick and prettily banded. I have only seen specimens in Mr. Metcalfe's and Mr. Hanley's collection.

109. *CERITHIUM HANLEYI* (pl. clxxxiii. f. 193), *Nobis*.

*Cerith. testâ conicâ, parvâ, albâ, castaneo bifasciatâ, minutè seriatim moniliferâ; aperturâ subtrigonâ; canali brevi.*

White and brown banded, conical, and minutely beaded. This pretty little shell belongs to Mr. Hanley.

110. *CERITHIUM BIFASCIATUM* (pl. clxxxiii. f. 198), *Nobis*.

*Cerith. testâ C. rugoso simili, sed regulari, acutè striatâ, albâ, rufo bifasciatâ.*

Not so irregular nor so coarse as *C. rugosa*, the striae more sharply cut, and the whorls regularly banded with brown. St. Nicholas, Island of Zebu, Philippines, *H. Cuming*. Mr. Hanley has a specimen.

111. *CERITHIUM RUBRO-LINEATUM* (pl. clxxxiii. f. 199), *Nobis*.

*Cerith. testâ ventricosâ, C. monilifero simili, sed lineis rubris spiralibus continuis undulatis.*

In form like *C. moniliferum*, but instead of the coloured beadings there are continuous red-beaded lines. Mr. Metcalfe's cabinet.

112. *CERITHIUM CRASSILABRUM* (pl. clxxxiii. f. 202, 203), *Krauss*, *Sud. Moll.* t. 6. f. 10.

*Cerith. testâ parvâ, conicâ, minutè striatâ, striis moniliformibus*



punctatis; aperturâ magnâ; labio externo crasso, variat fusco fasciato.

Like a *Nassa* in form, conical and pointed, with raised striæ, which are beaded and spotted with dark brown. One variety has a broad brown band in the centre of the whorls. In Mr. Cuming's collection from Port Natal.

113. *CERITHIUM RARIMACULATUM* (pl. clxxxiii. f. 204), *Nobis*.

*Cerith. testâ parvâ, elongatâ, albâ, maculis rubescentibus pictâ; anfractibus angulatis tuberculiferis.*

A small white shell, with elevated spire, the whorls angulated with a row of tubercles on the angle. Reddish-brown spots mark the lower part of the whorls. Island of Zebu, Philippines. *H. Cuming*.

114. *CERITHIUM NASSOIDE* (pl. clxxxiii. f. 200, 201), *Nobis*.

*Cerith. testâ parvâ, ventricosâ, minutè striatâ, albâ, prope suturam rubro maculatâ; anfractibus prope suturam angulatis, ultimo magno; labio lineato.*

A neat little shell, shaped like a *Nassa*, very prettily marked with red or black near the suture. It is in Mr. Cuming's collection, brought by Dr. Newcombe from the Sandwich Islands.

115. *CERITHIUM NIVOSUM* (pl. clxxxiii. f. 205), *Nobis*.

*Cerith. testâ parvâ, albâ, subventricosâ, seriatim acutè nodosum, ad suturam moniliformi.*

A very small white shell, shaped like a *Nassa*; it is delicately beaded in series on the whorls, with a more prominent beading at the suture. Mr. Hanley's collection. Locality unknown.

116. *CERITHIUM FLAMMICULATUM* (pl. clxxxiii. f. 206), *Nobis*.

*Cerith. testâ brevi, griseâ, rufo-nigrescente flammiculatâ, medio subventricosâ, anfractibus seriebus tribus rotundatim granosâ, ultimo ventricosâ; aperturâ subtrigonâ; labio externo nigrescente; canali brevissimo.*

A short species, prettily flawed with reddish-black between three spiral rows of roundish grains. The figure is from a specimen in Mr. Hanley's collection. Mr. Metcalfe has two very small specimens resembling it.

117. *CERITHIUM ZEBRUM* (pl. clxxxiii. f. 207, 208, 209), *Kiener*, Sp. Coq. pl. 25. f. 4. *C. dilectum*, *C. B. Adams*.

*Cerith. testâ parvâ, elongatâ, minutè longitudinaliter et spirali-*



ter granulosâ, albâ, vel roseâ, vel cinereâ, vel fusco fasciatâ, varicibus albis.

This little species differs from *C. gibberulum* in being so much more finely sculptured in proportion to its size. *Hab.* Gallapagos Islands.

118. *CERITHIUM GIBBERULUM* (pl. clxxxiv. f. 210, 211), *C. B. Adams*.

*Cerith.* testâ pupæformi, turritâ, fusco-grisescente vel nigrâ, varicibus albis, longitudinaliter costatâ et spiraliter sulcatâ; aperturâ parvâ.

Very small and rather long, white, or nearly black, with white varices, having longitudinal ribs crossed by raised lines. Coast of North America.

119. *CERITHIUM TENUE* (pl. clxxxiv. f. 212), *Nobis*.

*Cerith.* testâ parvâ, elongatâ, albâ, ad suturam et infernè fuscâ, longitudinaliter rugoso-costatâ, spiraliter undulatum costatâ; anfractibus numerosis; spirâ elongatâ; aperturâ parvâ.

A very small, white, roughly ribbed shell, with a band of brown at the suture, and another at the lower part of each whorl. Port Lincoln. (Mus. Cuming and Hanley.)

120. *CERITHIUM LACTEUM* (pl. clxxxiv. f. 213, 214), *Kiener*, Sp. Coq. pl. 7. f. 3.

*Cerith.* testâ pupæformi, albâ, spiraliter minutè granoso-striatâ; aperturâ parvâ.

Pupæform, white, tapering at the apex, minutely crossed with grained raised lines. Island of Ticao, Philippines, *H. Cuming*.

121. *CERITHIUM PAPILLOSUM* (pl. clxxxiv. f. 215), *Nobis*.

*Cerith.* testâ pallidâ, minutè granulatâ, elongatâ, medio sub-ventricosâ; anfractibus numerosis, paululùm inflatis, longitudinaliter crebrè plicatis, spiraliter seriebus sex granulosis, granulis rubro punctatis; aperturâ parvâ.

Pale, small, pupæform, with minute reddish dots at the back of each granule. Mr. Hanley's collection.

122. *CERITHIUM INTERSTRIATUM* (pl. clxxxiv. f. 216), *Nobis*.

*Cerith.* testâ pyramidali, pallidâ, fusco pallidè variegatâ, alternatim costulis granosis et lincis elevatis levibus spiraliter cinctâ; anfractibus subplanulatis; aperturâ rotundâ; labio externo expanso; canali brevi, valido.



Pyramidal, pale, variegated with pale brown, girt with alternately smooth and granulated spiral ridges; aperture rather round, with the outer lip expanded. Mr. Hanley's and Mr. Sowerby's collections. Locality unknown.

1 c. *Last whorl but one large, last whorl contracted*.—Genus COLINA, *A. Adams*.

123. CERITHIUM PINGUE (pl. clxxxiv. f. 217), *A. Adams*. Colina pinguis, *ined*.

Cerith. testâ ventricosâ, medio inflatâ, striatâ, pallidâ, spirâ conicâ, gracili; anfractibus medianis tuberculatis inflatis, ultimo contracto, ad suturam crenulato, versus aperturam expanso; aperturâ parvâ; labio interno simplici, labio externo expanso, lineato.

With a tapering spire, this shell has the middle whorls inflated and tuberculated, and the last whorl contracted. Mr. Cuming's collection, from Port Natal.

124. CERITHIUM CONTRACTUM (pl. clxxxiv. f. 218), *Nobis*.

Cerith. testâ *C. pingui* simili, sed longè angustiore.

A much narrower shell than *C. pinguis*, with a similar contraction of the last whorl. Mr. Hanley's collection. Locality unknown.

125. CERITHIUM MACROSTOMA (pl. clxxxiv. f. 219), *Hinds*, Voy. Sulph. pl. 16. f. 12.

Cerith. testâ parvâ, tenui, elongatâ, costatâ, spiraliter striatâ; spirâ elongatâ; anfractibus numerosis, ultimo uno latere contracto; aperturâ parvâ; labio externo expanso; canali lato.

A pretty little light elongated shell, with the back of the last whorl contracted and the outer lip of the aperture expanded. Borneo.

126. CERITHIUM COSTATUM (pl. clxxxiv. f. 220), *A. Adams*, (Colina) costata, *ined*.

Cerith. testâ parvâ, pallidâ, rubro maculatâ, solidâ, elongatâ, costatâ, spiraliter inter costas striatâ, spirâ elongatâ; anfractibus angulatis, ultimo contracto; aperturâ parvâ; labio externo expanso; canali valido.

Like *C. macrostoma*, but more solid, less slender, more strongly ribbed, with the outer lip less expanded. Mr. Cuming's collection.

127. CERITHIUM PUPÆFORME (pl. clxxxiv. f. 221), *A. Adams*. Colina pupæformis, *ined*.

Cerith. testâ *C. costato* simili, sed magis elongatâ; anfractibus inferioribus gradatim contractis.



More elongated and pupæform than *C. costatum*, with the three last whorls gradually contracted. Philippines, *H. Cuming*.

1 d. *Numerous short whorls, short canal.*—Genus CERITHOPSIS, *Forbes and Hanley*.

128. CERITHIUM TUBERCULARE (pl. clxxxiv. f. 222), *Montagu*, Test. Brit. p. 270. Cerithopsis, *Forbes and Hanley*.

Cerith. testâ *C. reticulato* simili, sed anfractibus vix ventricosis, canali valido.

It is not easy to find characters in this British shell to distinguish it from *C. reticulatum*, even specifically, but the whorls are less ventricose and the reticulation more fine. The canal is more decided.

129. CERITHIUM ALGERIANUM (pl. clxxxiv. f. 230, 231), *Nobis*.

Cerith. testâ pupæformi, albâ vel fulvâ, triseriatim tuberculatâ; anfractibus distinctis; aperturâ ovali.

The whorls are straighter, and the tubercles less close than in *C. tuberculare*. Algiers, *Mr. Hanley*.

130. CERITHIUM RETICULATUM (pl. clxxxiv. f. 228, 229), *Mont.*, Brit. Sp. p. 272. Terebra reticulata, *E. M.* p. 346.

Cerith. testâ elongatâ, costis tribus spiralibus et plicis longitudinalis nodosis reticulatâ, fuscâ vel albâ; anfractibus ventricosis.

Small, brown, reticulated with longitudinal plicæ, crossed by three spiral ribs. Great Britain and Mediterranean.

131. CERITHIUM LIMA (pl. clxxxiv. f. 232), *Brug.*, Lam. An. s. vert. no. 35.

Cerith. testâ elongatâ, rufâ, varicosâ; anfractibus numerosis, plicatis ad suturam elevatis, lineis acutè tuberculiferis cinctis; aperturâ parvâ, simplici.

Elongated, brown, red-lined, with plicæ crossed by sharply tuberculated spiral ribs. The whorls are shouldered at the suture. The aperture is small and simple. Mediterranean.

132. CERITHIUM ELONGATUM (pl. clxxxiv. f. 233, 234), *Nobis*.

Cerith. testâ attenuatâ, granulosâ; anfractibus numerosis, ventricosis, obliquis; aperturâ parvâ, simplici.

Resembling *C. lima*, but more attenuated, with the grains coarser, and the whorls ventricose and more oblique. Mediterranean, *Hanley*. Australia, *Strange*.



133. CERITHIUM GRANARIUM (pl. clxxxiv. f. 225, 226, 227), *Kiener*, pl. 19. f. 3.

Cerith. testâ *C. Lima* simili, sed granis obtusis ; anfractibus subplanulatis.

This Australian species differs from *C. Lima* in the tubercles not being sharp and the whorls not being shouldered.

134. CERITHIUM NEGLECTUM (pl. clxxxiv. f. 235, 236), *C. B. Adams*.

Cerith. testâ minutâ, nigrâ vel fulvâ, pupæformi, longitudinaliter plicatâ, spiraliter costis tuberculatis cinctâ ; aperturâ contractâ.

Minute, darkly coloured, and pupiform. Each of the upper whorls shows two or three spiral tuberculated ribs crossed by coarse longitudinal ones. Described as an American shell by Mr. Adams ; brought from Algiers by Mr. Hanley. The light brown specimen is Mr. Metcalfe's.

135. CERITHIUM RUGULOSUM (pl. clxxxiv. f. 237), *C. B. Adams*, Shells of Jamaica. *C. vicinum*, *ibid.* ?

Cerith. testâ turritâ, parvâ, albâ, cancellatâ ; anfractibus obliquis, ventricosis ; aperturâ ovali.

Very minute, cancellated, with the whorls rather oblique and ventricose. The white specimen is in Mr. Cuming's collection, from Jamaica. The brown specimen brought by Mr. Hanley from Algiers.

136. CERITHIUM GEMMULOSUM (pl. clxxxiv. f. 238), *C. B. Adams*, Shells of Jamaica.

Cerith. testâ minutâ, nigrescente, subpyramidali ; anfractibus ventricosis, costis tribus angustatis rotundatim tuberculatis, interstitiis latis et lineis elevatis longitudinalibus cancellatis.

Very like *C. neglectum*, but not so pupiform, and the interstices are wider than the tuberculated ridges, so that the tubercles form three lines of distinct round beads or gems on each whorl. Coast of North America.

137. CERITHIUM GRACILE (pl. clxxxiv. f. 228, 229), *Nobis*.

Cerith. testâ albâ vel fuscâ, tenui, parvâ, attenuatâ ; anfractibus numerosis, obliquis, costis spiralibus et lineis elevatis longitudinalibus reticulatis.

Very slender, white or brown, reticulated by prominent spiral ribs, crossed by longitudinal raised lines. The whorls are oblique,



numerous, and ventricose. Mr. Metcalfe's collection. Locality unknown.

138. *CERITHIUM PULCHELLUM* (pl. clxxxiv. f. 239), *C. B. Adams*, Shells of Jamaica.

*Cerith. testâ minutâ, pupæformi, albâ; anfractibus supernè elevatis, costellatis, infernè prope suturam carinâ unicâ moniliferâ, rubrâ; aperturâ magnâ; columellâ tortuosâ.*

The whorls of this pretty little Jamaican shell are fluted above, elevated and rounded, and near the suture circled by a beaded red line. Mr. Cuming's collection.

139. *CERITHIUM PUNCTATUM* (pl. clxxxiv. f. 240), *Linn.* (*Murex*). *M. subulatus*, *Montagu*, Supp. p. 115, t. 30, f. 20; *non C. subulatum*, *Lam.* *C.?* Emersoni, *C. B. Adams*, Shells of Jamaica.

*Cerith. testâ pyramidalî, basi truncatâ, fulvâ vel fusco fasciatâ; anfractibus rectis, costis distanter tuberculatis, duabus magnis, unâ parvâ intermediâ cinctis; aperturâ subtrigonâ; columellâ tortuosâ.*

A pyramidal brown or brown-banded Jamaican shell, showing on each whorl two large spiral ribs, with rounded ribs at regular distances, and one small intermediate rib. The base is truncated, and the aperture trigonal.

140. *CERITHIUM TEREPELLUM* (pl. clxxxiv. f. 241), *C. B. Adams*, Shells of Jamaica.

*Cerith. testâ elongatâ, pyramidalî, fulvâ; anfractibus spiraliter tricostratis, interstitiis latis crenulatis, ultimo truncato; aperturâ subtrigonâ.*

This Jamaican species is pyramidal, brown, with three smooth spiral ribs seen in each whorl, with wider crenulated interstices.

141. *CERITHIUM TRILINEATUM* (pl. clxxxiv. f. 242, 243), *Phil. Enum. Sic. v. ii. p. 163.*

*Cerith. testâ C. terebelli simili, sed medio subinflato, interstitiis rubro lineatis.*

This Mediterranean species differs from *C. terebellum* in being less pyramidal, the central part being slightly swelled; the interstices constitute reddish dark lines.

142. *CERITHIUM CEREUM* (pl. clxxxiv. f. 244, 245), *Nobis.*

*Cerith. testâ albâ, C. terebelli simili, sed basi rotundâ, costis spiralibus latioribus, interstitiis angustis, incisis.*



White, rather more straightly pyramidal than *C. trilineatum*, less so than *C. terebellum*. In both these the ribs are narrower than the interstices, but in *C. cereum* the reverse is the case. Mr. Hanley's collection, from Australia.

143. *CERITHIUM ASSIMILATUM* (pl. clxxxiv. f. 246), *C. B. Adams*, Shells of Jamaica.

Cerith. testâ nigrescente, *C. terebello* simili, sed costis subtuberculatis; anfractibus medianis subinflat, basi subrotundatis.

A darkly coloured Jamaican shell, like *C. trilineatum* in form, and showing three ribs on each of the upper whorls, but these are slightly tuberculated.

1 e. *Rather rounded aperture, granulated whorls, short, groove-like canal.*—Genus *PIRENELLA*, *Gray*.

144. *CERITHIUM ATTRAMENTARIUM* (pl. clxxxv. f. 249, 250), *A. Adams*. *Lampania attramentarium*, *A. Ad. ined.*

Cerith. testâ subpyramidali, nigrescente seu nigro punctatâ, spiraler crebrè sulcatâ; anfractibus prope suturam albis, apicalibus subplanulatis, medianis gradatim paululùm inflatis; aperturâ simplici, subovali; labio interno paululùm calloso; columellâ tortuosâ; canali vix distincto; labio externo undato.

In several specimens we have seen, the top whorls are straight, while the lower ones are bulged out a little below, towards the suture; this may be characteristic, or merely accidental. The shell is pyramidal, typically of a dark colour, although in a variety light and dark spotted. It is spirally grooved, and the outer lip is thin. Mr. Cuming's cabinet. Locality unknown.

145. *CERITHIUM SUBVIRIDE* (pl. clxxxv. f. 247), *Nobis*.

Cerith. testâ *C. attramentario* simili, sed pyramidali, breviusculâ, sulcis creberrimis, anfractibus haud inflatis, ad suturam nigro fasciatis.

A single specimen of this species is in Mr. Hanley's collection. It resembles *C. attramentaria*, but the whorls are more straight, and the upper part of the whorls is marked by a variegated band of dark colour, instead of being white. The specimen figured is Mr. Hanley's.

146. *CERITHIUM UNDULATUM* (pl. clxxxv. f. 248), *Nobis*.

Cerith. testâ *C. attramentario* simili, sed anfractibus ad suturam nigris, elevatis, undulatim crenulatis.

It is darkly coloured, elevated, and undulated on the upper



part of the whorls at the suture. In other respects it resembles *C. attramentaria* as much as *C. subviride* does.

147. CERITHIUM TURRITELLA (pl. clxxxv. f. 255, 256), *Quoy*, Voy. Astr. t. 3. p. 132. pl. 55. f. 8.

Cerith. testâ fuscâ vel cinerascete, elongato-conicâ, costellis longitudinalibus et spiralibus tuberculatis leviter cancellatâ; anfractibus ventricosis; aperturâ subpyriformi; canali aperto.

Shaped like a *Turritella*, with ventricose, sloping whorls, which are crossed by tuberculated ribs in both directions. *Hab.* Port Lincoln, Australia.

148. CERITHIUM MAMMILLATUM (pl. clxxxv. f. 253), *Risso*, Phil. Enum. Moll. Sic. t. 1. p. 194. pl. 11. f. 13. *C. granulatum, Costa?* *C. "Sardoum," Kiener*, Sp. de Coq. pl. 22. f. 2. *C. baccatum, Kiener*, pl. 22. f. 4.

Cerith. testâ *C. Turritellæ* simili, sed anfractibus breviusculis, supernè prope suturam angulatis, suturâ excavatâ.

The whorls are shorter than in *C. Turritella*, and angulated near the suture, which is deep. Mediterranean.

149. CERITHIUM CONICUM (pl. clxxxv. f. 251, 252), *Blainville*, Faune Française, Moll. p. 158; *Kiener*, Sp. de Coq. pl. 28. f. 3.

Cerith. testâ *C. Turritellæ* simili, sed anfractibus brevioribus, tuberculis majoribus, paucis.

The whorls in this Mediterranean species present two rows of large tubercles. It belongs to the same group as *C. Turritella*, but like *C. mammillatum* the whorls are angulated; unlike that species, they are large, and disposed in two rows on each whorl.

150. CERITHIUM CINERASCENTE (pl. clxxxv. f. 254), *Pallas?*

Cerith. testâ *C. conico* simili, sed cinerascete, tuberculis acutis.

The texture of this shell is peculiar, and presents a bluish porcelain-like appearance. The tubercles are pointed. Mr. Hanley's collection, from Karak, in Egypt.

151. CERITHIUM LAYARDII (pl. clxxxv. f. 257), *A. Adams*.

Cerith. testâ turritâ, mammillatâ; anfractibus gradatis, subquadratis, supernè elevatis, albo cinctis; tuberculis rotundatis; ultimo anfractu subrotundato; aperturâ subtrigonâ.

Resembling *C. conica* and *C. mammillata*, but with square whorls, shouldered and white-banded above. The tubercles are



in four rows, and rounded. Brought by A. L. Layard, Esq., from Ceylon.

152. CERITHIUM CLATHRATUM (pl. clxxxv. f. 258), *A. Adams* (Cerithopsis).

Cerith. testâ albâ, ventricosâ, subconicâ; anfractibus biangulatis, angulis tuberculatis, ultimo anfractu carinato; aperturâ rotundatâ.

A beautiful white species, brought by Mr. Cuming from Bacloyon, Island of Bohol, Philippines. It is conical, and has the whorls ventricose, with two tuberculated angles. The last whorl has a keel.

DIVISION 2.—*Frequenting marshes or rivers; canal not produced; operculum round, with many whorls.*—POTAMIDES, *Brongniart*.

2 a. *Aperture sinuous, emarginated at the base, columella callos.*—Genus PYRAZUS, *Montf.*

153. CERITHIUM PALUSTRE (pl. clxxxv. f. 261), *Linnaeus* (Strombus), *Linn. Syst. Nat. ed. 12. p. 1213*; *Brug. Dict. C. crassum, Lamk. no. 15.*

Cerith. testâ magnâ, crassâ, pyramidali, fuscâ-nigrescente arcuatim costatâ, spiraliter inciso-sulcatâ, inter sulcos planulatâ; anfractibus subplanulatis, ultimo anfractu univaricoso; aperturâ subovali; labio interno brevi subcalloso, labio externo expanso subdenticulato, superne sinuato; canali circulari, brevissimo.

The very large, darkly coloured, sulcated species, with rather expanded and curved outer lip. *Hab.* Marshes and mouths of rivers in the Red Sea and East Indies. There is a variety found at the mouths of Australian rivers, with short white whorls and fewer sulci.

154. CERITHIUM SULCATUM (pl. clxxxv. f. 262), *Born* (Murex sulcatus), *Mus. p. 320.* Murex Molluccanus, *Gmel.*, p. 3593. C. sulcatum, *Brug.* Strombus mangiorum, *Schrœt.*, *Phys. Conch.* p. 383. N. fuscus, *Gmel.*

Cerith. testâ ventricosâ, brevi, pupæformi, longitudinaliter plicatâ, spiraliter sulcatâ, fuscâ; aperturâ auriformi; labio externo crasso, ad columellam trans canalem incurvo; canali separato, rotundo.

A thick, pupiform, sulcated species, in which the outer lip is



coiled round over the upper part of the canal, so as to leave it a separate opening. *Hab.* China and Philippines.

155. *CERITHIUM SEMITRISULCATUM* (pl. clxxxv. f. 263), *Bolton*, Cat. Conch. Coll. Yoldi, p. 57, *fid.* Mörch. *C. sulcatum*, var. Kiener, pl. 27. f. 1. *C. Martinianum* — ?

*Cerith.* testâ *C. sulcato* simili, sed lævigata; costis longitudinalibus planulatis.

Of a less abbreviated form and smooth texture than *C. sulcatum*, the ribs being flattened and the sulci less deep. Port Essington.

156. *CERITHIUM AUSTRALE* (pl. clxxxv. f. 266), *Quoy*, Voy. de l'Astr. pl. 55. f. 7; Kien. Mon. *Cerith.* pl. 8. f. 2.

*Cerith.* testâ rugosâ, longitudinaliter costis undulatâ, spiraliter inæqualiter sulcatâ, nigrâ, prope suturam albâ; anfractibus ventricosis; aperturâ nigro lineatâ; labio interno posticè calloso; columellâ brevi; labio externo sinuato.

Rather short, rugged, roughly and unequally ribbed, crossed by sulci in threes; aperture with a white callosity on the inner lip, and the short columella white, the outer lip sinuous and not thickened. *Hab.* Near Port Jackson.

157. *CERITHIUM ZONALE* (pl. clxxxv. f. 264, 265), *Brug.* Dict. no. 39. *Tro. striatellus*, *Dillw.* Cat. t. 2. p. 813. *Lampania zonalis*, *Gray*. *C. pirenale*, *Quoy*.

*Cerith.* testâ *C. Australi* simili, sed pyramidalis; anfractibus haud ventricosis, albo, nigro et fusco variè fasciato; labio externe tenue, profundè sinuato.

An Australian shell, very much like the one previously described (*C. Australe*), but more acutely pyramidal, varied by coloured bands, and with a deep sinus and prominent lower edge to the outer lip.

158. *CERITHIUM SEPTEMSTRIATUM* (pl. clxxxv. f. 259, 260), *Say*, Amer. Conch. pl. 49. f. 2. *C. peloritanum*, *Contraîne*, *fid.* Kiener, pl. 25. f. 2. *C. nigrescens*, *Ménke*? *C. nigrinum*, *Ph.*? *C. albiovittatum*, *C. B. Adams*.

*Cerith.* testâ parvâ, obtusâ, nigrâ, nonnumquam albo fasciatâ, spiraliter sulcatâ; anfractibus ad suturam crenulatis; aperturâ subpyriformi; canali rotundo, emarginato.

A very small and rather variable North American shell, which



has only a cut out hollow for a canal, and has the whorls always crenulated at the suture.

159. *CERITHIUM EBENINUM* (pl. clxxxv. f. 267), *Bruguère*, Dict. no. 26. *Strombus aculeatus*, *var.*, et *Murex Aluco*, *var.*, *Gmel.*

*Cerith.* testâ pyramidali, turritâ, fusco-nigrescente, angulatim nodosâ, spiraliter sulcatâ; anfractibus angulatis, noduliferis, ultimo latere varicoso; aperturâ albâ, fusco tinctâ, magnâ, ad spiram elevatâ; labiis expansis exfoliatis; labio interno calloso, expanso; canali lato.

A large, darkly coloured, well-known Australian shell, with spirally grooved, angular nodose whorls, and an expanded, irregularly undulated aperture.

160. *CERITHIUM PACIFICUM* (pl. clxxxv. f. 268), *Sowerby*, Gen. of Shells, no. 42. f. 9. *C. Humboldti*, *Valenc.*, Rec. d'Obs. Zool. 2. 280 (1833).

*Cerith.* testâ pyramidali, fusco-nigrescente; anfractibus acutè angulatis lævibus, ad angulum nodulosis, ultimo latere subcarinato; aperturâ subquadrilaterâ; labio interno calloso; columellâ tortuâ; labio externo angulato, prominentè undato; canali lato.

Although very different from *C. Ebeninus*, this smaller species has some evident affinities with it. The whorls are nearly smooth, very sharply angulated and sharply tuberculated at the angles. The aperture is spreading and angular. *Hab.* Tombey, Peru, on mud banks, *H. C.*

2 b. *Aperture sinuous and only slightly emarginated at the lower part; spire often decollated.*—Genus *CERITHIDEA*, *Swains.*

161. *CERITHIUM OBTUSUM* (pl. clxxxvi. f. 271), *Lamk.*, An. s. vert. no. 17. *Strombus obtusus*, *Wood*, Supp. pl. 4. f. 8. *C. decollatum*, *Sowerby*, Gen.

*Cerith.* testâ ventricosâ, fuscâ, decollatâ, costulis longitudinalibus undulatis et sulcis planulatis spiralibus reticulatâ; anfractibus sex, rotundatis, ultimo infernè spiraliter striato; aperturâ rotundatâ; labio interno tenui, brevi; columellâ brevi, tortuâ; labio externo latè reflexo; operculo rotundo, multispirali.

A moderately solid, ventricose, pyramidal, decollated shell, ornamented by a sort of network formed by the crossing of undulating, roughened longitudinal ribs, and rather flattened spiral ridges and grooves. "The *Cerithia obtusa* live in brackish water



in mangrove swamps and the mouths of rivers in Singapore and Borneo."—*A. Adams*.

162. *CERITHIUM KIENERI* (pl. clxxxvi. f. 272), *Homb. et Jay?* *C. obtusum*, var., *Kiener*.

Cerith. testâ *C. obtuso* simili, sed graciliore, tenuiore; anfractibus octo.

Usually considered a variety of *C. obtusum*, but much narrower, and with eight whorls instead of six. Philippines and Borneo.

163. *CERITHIUM RHIZOPORARUM* (pl. clxxxvi. f. 273), *A. Adams* (Cerithiidea).

Cerith. testâ *C. obtuso* simili, sed angustiore; anfractibus planulatis, ad suturam moniliferis.

This species differs from *C. obtusum* and *C. Kieneri* in having the whorls flat or straight. It inhabits estuaries near the sea, where it is found among the roots of the *Rhizophora* or mangrove. Mr. Cuming has taken it at Cagayan, Province of Misamis, Island of Mindanao, Philippines.

164. *CERITHIUM DECOLLATUM* (pl. clxxxvi. f. 276), *Linnaeus* (*Murex*), Linn. Syst. Nat. ed. 12. p. 1226. Turbo pulcher, *Dillw.*, Cat. no. 91.

Cerith. testâ decollatâ, spiraliter tenuistriatâ, longitudinaliter plicatâ; anfractibus octo vix ventricosis; aperturâ subquadratâ; columellâ tortuâ, brevi; labio externo subexpanso.

A smoother shell than the preceding, but having longitudinal curved ribs and fine spiral striæ, which are strongest in the interstices. The whorls are generally light-coloured on the upper part near the suture. Cuba.

165. *CERITHIUM SINENSE* (pl. clxxxvi. f. 274), *Philippi*, Abbild. t. 1. f. 15.

Cerith. testâ lævigatâ, subcorneâ, pyramidaliter longitudinaliter plicatâ; anfractibus octo ad undecim, paululùm ventricosis; aperturâ subquadratâ; columellâ tortuâ; labio externo paululùm expanso.

*C. decollatum* is a western species, while this is from China and other parts of the East; it is narrower, is never decollated so far down, and never has spiral striæ.

166. *CERITHIUM CHARBONNIERI* (pl. clxxxvi. f. 279), *Petit*,



Journ. de Conch., Nov. 15, 1851. *Cerithium unicarinatum*, *Metcalfé*, Ann. and Mag. of Nat. Hist.

*Cerith.* testâ pyramidali, corneâ, *C. Sinensi* simili, sed magis conicâ; anfractu ultimo univaricoso, infernè unicarinato; aperturâ subtrigonâ.

If really distinct from *C. Sinense*, it differs from that species in being a more pyramidal shell, with the whorls more straight-sided, and the aperture triangular. Borneo. Mr. Cuming's collection.

167. *CERITHIUM ORNATUM* (pl. clxxxvi. f. 277, 278), *A. Adams* (Cerithidea).

*Cerith.* testâ lævigatâ, tenui, plerumque fasciis fuscis et albis pictâ; anfractibus ventricosus, plus minusve distanter costatis; aperturâ expansâ.

This species is ornamented by bands of brown and white; it is rather horny, smooth, and also differs from *C. decollatum* in having the whorls ventricose. Philippines, *Cuming*.

168. *CERITHIUM CORNEUM* (pl. clxxxvi. f. 275), *A. Adams* (Cerithidea).

*Cerith.* testâ turrito-conicâ, apice truncatâ, tenui, corneâ, fuscâ; anfractibus planiusculis, varicibus nullis, costis arcuatis longitudinalibus æqualibus sculptis, anfractu ultimo ad peripheriam angulato, basi subplano sulcato; aperturâ subquadratâ, anticè subcanaliculato; labro expanso, margine acuto reflexo.

This species is more fluviatile than many of the others, and the texture of the shell is thin and horny; in general appearance it most resembles *C. Charbonnieri* of Petit, but the last whorl is not acutely carinated. The ribs are more straight and the whorls less ventricose than in *C. ornatum*. Borneo, mouths of rivers.

169. *CERITHIUM VARICOSUM* (pl. clxxxvi. f. 280, 281, 282), *Sowerby*, Gen. of Sh. *C. Hegewischii*, *Ph.*, Sp. Gen. Coq. t. 1. f. 6. *Var. C. Iostoma*, *Pffr.* *C. Helicoide*, *C. B. Adams*. *C. validum*, *C. B. Adams*, Sh. of Jamaica.

*Cerith.* testâ acutè pyramidali, solidâ, costis longitudinalibus et spiralibus undulatis et nodiferis cancellatâ; fuscâ, in medio anfractuum albo fasciatâ; plerumque varicosâ, varicibus crassis; anfractibus decem, ultimis subitò crescentibus; aperturâ albidâ, seu fasciatâ, subquadratâ; columellâ tortuâ; canali vix excavato; labio externo utrinque incrassato, ad canalem angulato.



Rather thick, cancellated with knotted cross-ribs, generally having thickened, sometimes white, varices. The shell is of a brown-colour, with a white band in the middle of the whorls. Real Llejos, Central America, at the roots of mangroves, *H. Cuming*. The narrower variety, without varices, we believe to be *C. Helicoide* of C. B. Adams.

170. *CERITHIUM MÖRCHII* (pl. clxxxvi. f. 283), *A. Adams* (Cerithidea).

Cerith. testâ subeylindricâ, decollatâ, albo-cærulescente, longitudinaliter costatâ, spiraliter sulcatâ; anfractibus subventricosus, gradatim crescentibus; aperturâ undatim subquadratâ; labio externo paululûm incrassatâ. Variat sulcis rubro-lineatis.

A northern species, in some degree resembling *C. varicosa*, but not reticulated, having rounded ribs crossed by spiral sulci, which in one variety are marked by a red line. The general tint is bluish-white. The shell is rather cylindrical, and in Mr. Cuming's two specimens, decollated.

171. *CERITHIUM MONTAGNEI* (pl. clxxxvi. f. 284, 285, 286), *D'Orbigny*, Voy. dans l'Am. Mér. Moll. C. Reeveanum et *C. pulchrum*, *C. B. Adams*. *C. Largilliertii*, *Philippi*, Abbild. t. 1. f. 7. *C. Fortunei*, *Adams*.

Cerith. testâ ventricosâ, conicâ, lævigatâ, longitudinaliter costellatâ, fusco et fulvo pallido spiraliter fasciatâ; anfractibus decem, ventricosus, subito crescentibus, ultimo magno, subtûs carinato, inde striato; suturâ profundâ; aperturâ magnâ; labio externo latè expanso et reflexo; columellâ tortuâ, crassâ.

*C. varicosum* is reticulated, this is smooth, ribbed above, and has a keel and striæ under the whorls. In some specimens however there are faint traces of cross-bars above. The form is conical, the whorls rapidly enlarging. *C. Largilliertii* is the rather plain shell we have figured, with a scarcely expanded, probably unformed, outer lip.

172. *CERITHIUM BICARINATUM* (pl. clxxxvi. f. 288), *Gray*, Fauna of New Zealand. *C. lutulentum*, *Kiener*, Sp. Gen. Coq. pl. 22. f. 3.

Cerith. testâ pyramidalî, fusco-nigricante, ad suturam albo lineatâ, longitudinaliter costatâ, subtûs spiraliter acutè bicarinatâ; aperturâ subquadratâ; canali subproducto.

We have not seen any fully formed specimens of this New Zealand shell, which is remarkable for the two sharp keels bordering the lower part of the last whorl.



173. CERITHIUM SUBCARINATUM (pl. clxxxvi. f. 287), *Nobis*.

Cerith. testâ parvâ, lævi, fusco-nigricante, longitudinaliter costatâ, subtus spiraliter bicarinatâ; aperturâ bicanaliculatâ; labio externo paululum producto; canali brevissimo, profundo.

A small, dark brown shell, which is smoothly ribbed at the upper part and shows two obtuse keels at the lower part of the whorls. New Zealand, *T. Hart, R.N.*

174. CERITHIUM SCALARIFORME (pl. clxxxvi. f. 290), *Say?*

Cerith. testâ pyramidali, acutâ, fusco-nigricante, in medio anfractuum albo-fasciatâ, longitudinaliter distanter costatâ, subtus unicarinatâ; anfractibus duodecim, ventricosis; aperturâ subexpansâ; labio externo anticè producto.

A pretty little species, with distant ribs and distinct rounded whorls. It has a keel at the lower part. Florida.

175. CERITHIUM COSTATUM (pl. clxxxvi. f. 291, 292), *Wood*, (*Strombus*), 43. *C. Lafondii*, *Michaud*, *Kiener*, Sp. Gen. Coq. pl. 24. f. 3. *C. ambiguum et servilis*, *C. B. Adams*.

Cerith. testâ parvâ, acutâ, fuscâ, spiraliter striatâ, longitudinaliter crebrisulcatâ; anfractibus numerosis, ventricosis, ultimo subtus unicarinato; aperturâ expansâ.

Resembling *C. scalariforme*, but smaller, with the ribs more numerous and crossed by spiral striæ. Jamaica.

176. CERITHIUM RISSOIDEUM (pl. clxxxvi. f. 289), *Nobis*.

Cerith. testâ fusco-cærulescente, pyramidali; anfractibus rotundatis, obliquè albo-costatis, infra spiraliter carinatis; labio externo, crasso, expanso, sinuato.

Narrower than *C. Montagnei*, with less expanded aperture, and the whorls prettily ornamented by regular bluish-white ribs. Mr. Cuming's collection. Locality unknown.

177. CERITHIUM PLUMBEUM (pl. clxxxvi. f. 293), *Nobis*.

Cerith. testâ parvâ, elongatâ, plumbeâ, spiraliter striatâ, longitudinaliter vix costatâ; anfractibus decem, subrotundatis, gradatim crescentibus; aperturâ ovali.

A pretty little Australian species, of which several specimens are in Mr. Hanley's collection; over a brown ground-colour there is a pretty plum-like bloom. It is spirally striated.

178. CERITHIUM PAUXILLUM (pl. clxxxvi. f. 294), *A. Adams*.



*Cerith. testâ pyramidalî, parvâ, pallidè fulvâ, acutâ, longitudina-liter plicatâ; anfractibus distinctis, spiraliter costatis, costâ inferiore maximâ; aperturâ expansâ; canali subproducto, tortuoso.*

Small, pale fawn, sharp, longitudinally ribbed, crossed by narrow ribs, the lowest of which on each whorl is large. The aperture is expanded, and terminates in a slightly produced, tortuous canal. Island of Bureas, Philippines, *H. Cuming*.

2 c. *Shaped like a Trochus, many-whorled; columella twisted.*  
—Genus TELESCOPIUM, *Schumacher*.

179. CERITHIUM TELESCOPIUM (pl. clxxxv. f. 269), *Linnaeus* (Trochus), *T. Linn. Syst. Nat. Trochus, no. 600. Telescopium fusca, Schm.*

*Cerith. testâ conicâ, fusco-nigricante, spiraliter planulatim sulcatâ; anfractibus angustatis, numerosis, ultimo basi planulato, spiraliter costellato; aperturâ quadrilabrâ; columellâ albâ, tortuosâ; labio externo anticè producto, denticulato, posticè emarginato; operculo corneo, rotundato, multispirali.*

This well-known conical species is believed by anatomists to have affinities with the *Trochidæ*, rather than with the genus now before us. With these questions we have little to do at present, but conchologically the shell appears very suitably placed near the group to which *C. fuscatum* and *C. radula* belong. Philippines, *H. C.* Singapore, Malabar, etc., *Auct.*

2 d. *Fluvatile, many whorls; columella tortuous; outer lip produced in front; shell generally covered by an epidermis.*—Genus TYMPANOTOMUS, *Klein*.

180. CERITHIUM FUSCATUM (pl. clxxxvi. f. 300, 301), *Linnaeus* (*Murex fuscatus*), *Linn. Syst. Nat. ed. 12. p. 755. Cerithium muricatum, Brug., Dict. no. 27. Strombus tympanorum aculeatus, Chemn., Conch. v. 9. t. 136. f. 1267, 1268. C. muricatum, Sowerby.*

*Cerith. testâ elongatâ, epidermide fuscâ indutâ, tuberculis aculeatis magnis paululùm adscendentibus cinctâ; anfractibus unâ serie tuberculatis, ad suturam graniferis, ultimo subtus biseriatis moniliferis; aperturâ curtâ, subquadratâ, supernè angulatâ; labio externo anticè producto; columellâ breviusculo; canali emarginato.*

This well-known aculeated shell, with a brown epidermis, frequents the mouths of rivers in West Africa.



181. *CERITHIUM RADULA* (pl. clxxxvi. f. 303), *Linnæus*, Syst. Nat. no. 575. *Non* *C. radula*, *Born.* *O. Owenii*, *Ferr.*, *Martini* Conch. t. 155. f. 1459. *Murex granulatus*, *Wood*, Ind. pl. 28. f. 160. *Murex terebella*, *Gmel.*, no. 144.

*Cerith. testâ elongato-turritâ, epidermide fusco-viridescente indutâ, granoso-noduliferâ; anfractibus numerosis, supernè anguliferis, ad suturam granulatis, ad angulum angulatim pliciferis, sub angulo duplicatim moniliferis; aperturâ subquadratâ; labio externo anticè producto.*

We have some doubt in separating this from the preceding; some specimens occur which seem to indicate a tendency to assume the same characters. In its normal form however this species does not present the prominent aculeations of *C. fuscatum*. West Africa.

182. *CERITHIUM MULTIGRANUM* (pl. clxxxvi. f. 302), *Nobis*. *C. radula*, *Born*, *non Linn.*

*Cerith. testâ elongatâ, fuscâ vel griseâ, costellis spiralibus regulariter rotundatim granosis cinctâ; anfractibus supernè angulatis, ad angulum et ad suturam moniliferis; aperturâ oblongâ; labio externo anticè producto; columellâ subtortuâ; canali sinuato.*

Resembling *C. radula*, but with the rows of granules rounded, regular, and nearly equal. West Africa.

183. *CERITHIUM FLUVIATILE* (pl. clxxxvi. f. 296 to 299), *Potiez et Michaud*, Cat. des Moll. de Douai, p. 363. pl. 31. f. 19, 20; *Kiener*, pl. 19. f. 3. *Strombus pictus*, *Bolten*, *fid. Mörch.* *Var. Cerithium alatum*, *Philippi*, t. 1. f. 11. *Var. C. microp-terum*, *Kiener*, Sp. Gen. Coq. pl. 30. f. 3. *C. radix*, *Dufô.*

*Cerith. testâ pyramidali, solidâ, fasciatâ, plerumque epidermide indutâ, longitudinaliter plicatâ; anfractibus numerosis, distinctis, rectiusculis, medio bisulcatis; suturâ excavatâ; ultimo anfractu latere univariicoso; aperturâ subangulatâ; labio externo plus minusve expanso, ætate angulatim elevato; columellâ tortuâ.*

Through all the varieties of this shell it preserves the same general characters; the incised grooves, the straight ribs, the deep suture, and the expanded outer lip; and although the latter character varies so much in degree as to have caused some authors to separate the broadly expanded variety from that which is but slightly so, we consider these variations such as are frequently found in different ages and conditions among fluviatile shells. Indian Seas.



184. CERITHIUM RETIFERUM (pl. clxxxvi. f. 295), *Nobis*.

Cerith. testâ *C. fluviatili* simili, sed costarum interstitiis quam costæ latoribus, costis longitudinalibus et spiralibus albis, nodosis; suturâ haud canaliculatâ.

This differs from *C. fluviatilis* in the absence of a hollow suture, and in the sculpture, which resembles white knotted network. A white band on the upper part of the whorls. *Hab.* In salt marshes at the Island of Siquijor, Philippines, *H. Cuming*.

## LIST OF FIGURES IN PLATES CLXXVI. TO CLXXXVI.

(The Figure after each Name refers to the number of the Species.)

(The specimens, generally, unless otherwise designated in the text, are in the collection of *H. Cuming, Esq.*)

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(The "VERTAGUS" group.)

- Fig.  
1. *C. taeniatum*, *Quoy*, 2.  
2, 3. — *Vertagus*, *Linn.* 1.  
4, 5. — *lineatum*, *Brug.* 6.  
6-10. — *fasciatum*, *Brug.* 3.  
11, 12. — *asperum*, *Linn.* 5.  
13-15. — *Kochii*, *Phil.* 19.  
16-18. — *recurvum*, *Sowb.* 20.  
19. — *Cumingii*, *A. Ad.* 9.  
20-22. — *Pharos*, *Hinds*, 4.

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- 23, 24. — *attenuatum*, *Phil.* 18.  
25. — *pulchrum*, *A. Ad.* 15.  
26, 27. — *articulatum*, *A. Ad.* 16.  
28. — *nobile*, *Reeve*, 11.  
29. — *maculosum*, *Martyn*, 10.

Fig.

- 30-32. *C. obeliscus*, *Brug.* 12.  
33. — *Sowerbii*, *Kiener*, 8.  
34, 35. — *aluco*, *Linn.* 7.  
36, 37. — *semigranosum*, *Lam.* 13.  
38-40. — *cedo-nulli*, *Sowb.* 14.  
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43. — *vulgatum*, *Brug.* 64.  
44. — *echinatum*, *Lam.* 36.  
45. — *Adansonii*, *Brug.* 37.  
46. — *polygonum*, *Sowb.* 22.  
47. — *subnodosum*, *A. Ad.* 65.  
48. — *adustum*, *Kien.* 70.  
49. — *tuberosum*, *Fab.* 49.  
50. — *Mediterraneum*, *Desh.* 67.



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51. *C. gemma*, *Sowb.* 105.  
 52, 53. — *suturale*, *Phil.* 44.  
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 61, 62. — *cæruleum*, *Sowb.* 72.  
 63. — *corallinum*, *Kien.* 59.  
 64. — *torulosum*, *Linn.* 35.  
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 66. — *citrinum*, *Sowb.* 26.  
 67. — *vulgatum*, *var. Brug.* 64.  
 68. — *armatum*, *Phil.* 41.  
 69. — *atratum*, *Born.* 28.  
 70. — *alternatum*, *Sowb.* 98.  
 71, 72. — *caudatum*, *Sowb.* 29.  
 73. — *alternatum*, *Sowb.* 98.  
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- 78, 79. — *uncinatum*, *Gmel.* 27.  
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 86, 87. — *striatissimum*, *Sowb.* 30.  
 88-90. — *tenellum*, *Sowb.* 34.  
 91. — *planispiratum*, *Sowb.* 32.  
 92. — *torulosum*, *Linn.* 35.  
 93. — *munitum*, *Sowb.* 33.  
 94. — *spathuliferum*, *Sowb.* 39.  
 95. — *umbonatum*, *Sowb.* 40.  
 96. — *armatum*, *Phil.* 41.  
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- 98, 99. *C. dialucum*, *Phil.* 45.  
 100. — *fenestratum*, *Sowb.* 46.  
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 102. — *serotina*, *A. Ad.* 48.  
 103. — *rhodostoma*, *A. Ad.* 49.  
 104. — *rostratum*, *Sowb.* 50.  
 105. — *ravidum*, *Phil.* 51.  
 106, 107. — *fusiforme*, *Sowb.* 52.  
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 157, 158. — *Metcalfei*, *Sowb.* 87.  
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 163, 165. — *moniliferum*, *Kien.* 91.  
 166-169. — *variegatum*, *Quoy*, 92.  
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     179. — *alternatum*, *Sowb.* 98.  
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     187. — *lemniscatum*, *Quoy*, 106.  
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     191. — *splendens*, *Sowb.* 101.  
     192. — *eximium*, *Sowb.* 103.  
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     198. — *bifasciatum*, *Sowb.* 110.  
     199. — *rubro-lineatum*, *Sb.* 111.  
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     205. — *nivosum*, *Sowb.* 115.  
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 237, 237\*. — *rugulosum*, *C. B. Ad.* 135.  
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     239. — *pulchellum*, *C. B. Ad.* 138.  
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*papillosum*, *Sowb.*, 121, f. 215.  
*patulum*, *Sowb.*, 97, f. 74.  
*pauxillum*, *A. Ad.*, 178, f. 294.  
*peloritatum*, *Cantr.*, v. *septemstriatum*, 158.  
*Peruviauum*, *D'Orb.*, not identified.  
*perversum*, a British *Triphoris*.  
*petrosium*, *Wood*, 94, f. 171, 172.  
*Pharos*, *Hinds*, 4, f. 20, 21, 22.  
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*pictus*, *Bolt.*, v. *fluviatile*, 183.  
*pingue*, *A. Ad.*, 123, f. 217.  
*piperitum*, *Sowb.*, 76, f. 136, 137.  
*pirenale*, *Quoy*, v. *zonale*, 157.  
*planispiratum*, *Sowb.*, 32, f. 91.  
*planum*, *Anton*, 54, f. 111-113.  
*plumbeum*, *Sowb.*, 177, f. 293.  
*polygonum*, *Sowb.*, 22, f. 46.  
*procerum*, v. *fasciatum*, 3.  
*pulchellum*, *C. B. Ad.*, 138, f. 239.  
*pulcher*, *Dillw.*, v. *decollatum*, 164.  
*pulchrum*, *A. Ad.*, 15, f. 25.  
*pulchrum*, *C. B. Ad.*, v. *Montagnei*, 171.  
*punctatum*, *Linn.*, 139, f. 240.  
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*purpurascens*, *Sowb.*, 99, f. 182-186.  
*pusillum*, *Nuttal*, not identified.  
*radix*, *Duf.*, v. *fluviatile*, 183.  
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*radula*, *Born*, v. *multigranum*, 182.  
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*ravidum*, *Phil.*, 51, f. 105.  
*recurvum*, *Sowb.*, 20, f. 16, 17, 18.  
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*reticulatum*, *Toll.*, v. *Sayi*, 82.  
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*rhodostoma*, *A. Ad.*, 49, f. 103.  
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*rugosum*, *Wood*, 107, f. 195, 196, 197.  
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*Rupellii*, *Phil.*, 42, f. 65.  
*salebrosum*, *Sowb.*, 55, f. 114, 115.  
*Sayi*, *Menke*, 82, f. 149, 150, 151.  
*scabridum*, *Phil.*, not identified.  
*scalariforme*, *Say*, 174, f. 290.  
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*semiferrugineum*, *Lamk.*, 75, f. 75, 76.

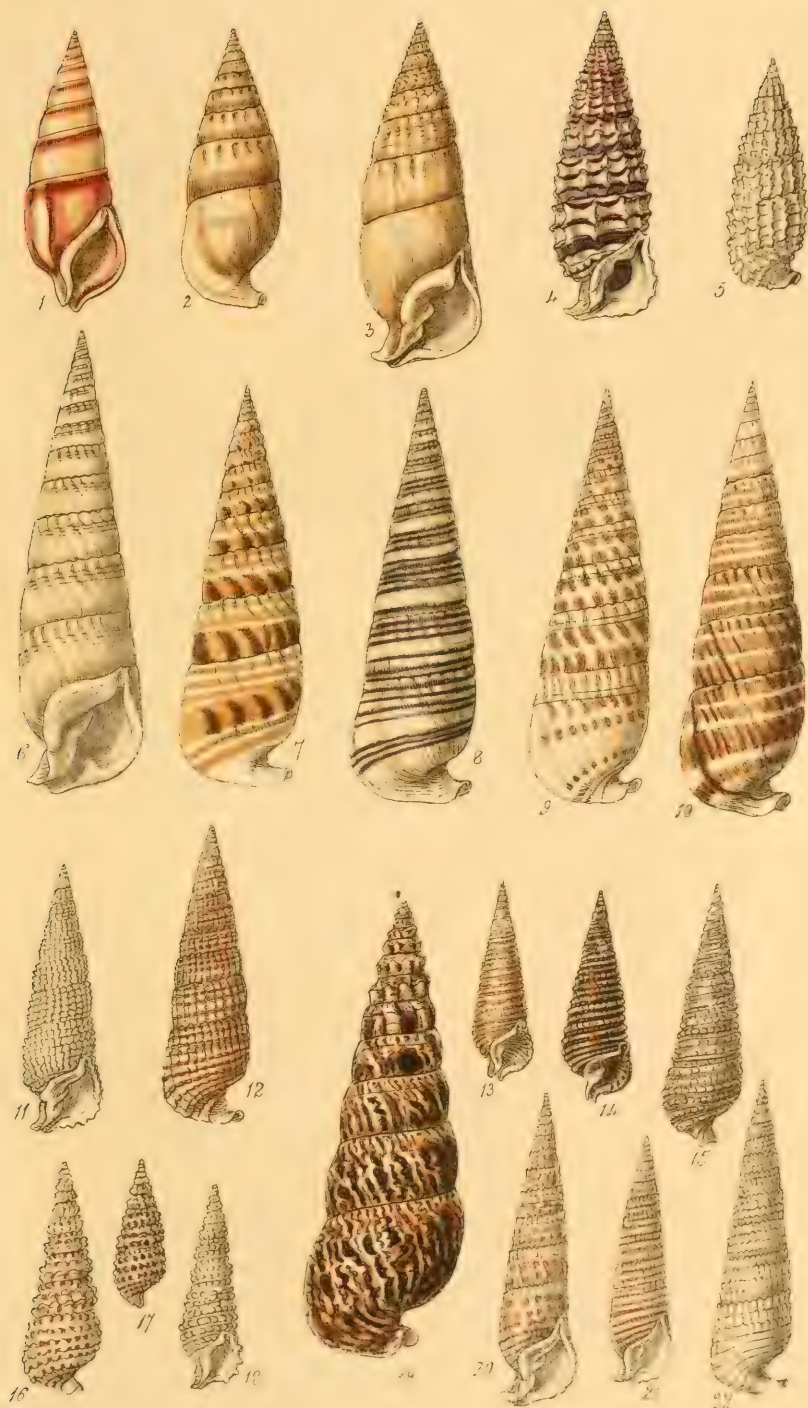


- semigranosum, *Lam.*, 13, f. 36, 37.  
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*variabile*, *C. B. Ad.*, v. *ferrugineum*, 96.  
*variabile*, *C. B. Ad.*, not identified.  
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*vibex*, v. *asperum*, 5.  
*vicinum*, *C. B. Ad.*, v. *rugulosum*, 135.  
 violaceum, *Quoy*, not identified.  
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Pl. CLXXVII

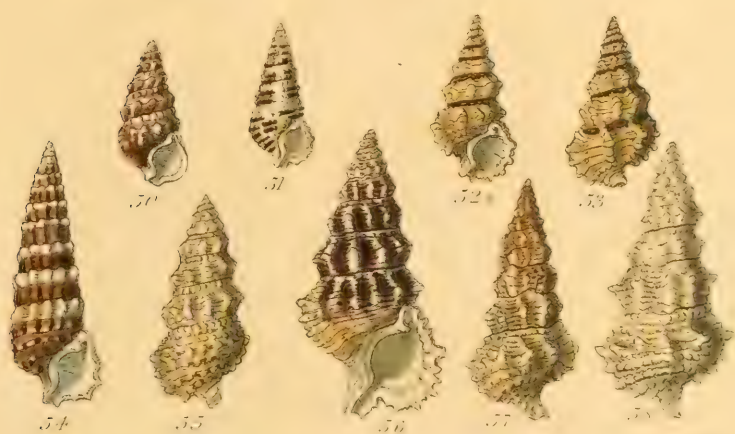


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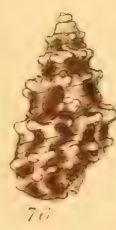
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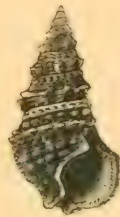
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P. CLXX



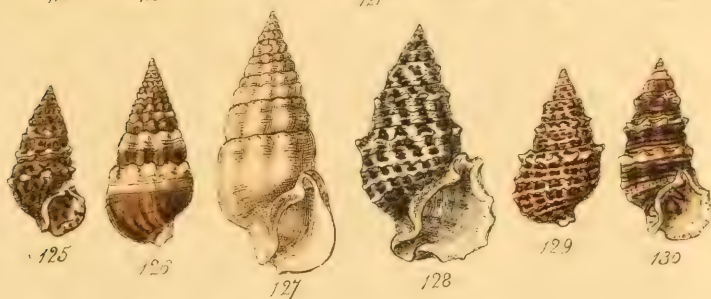






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Pl. CLXXXI.

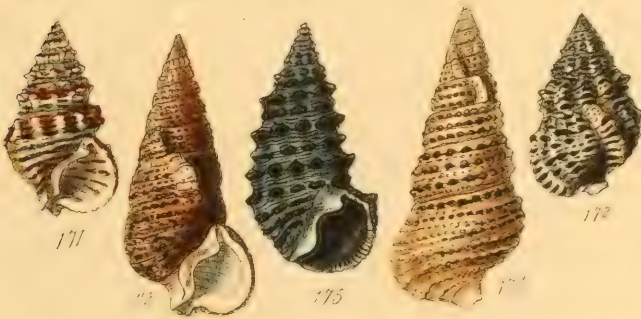
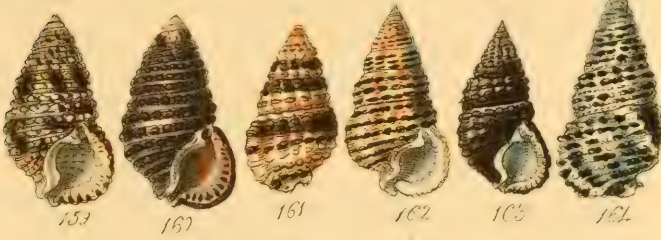


*G. L. S.*





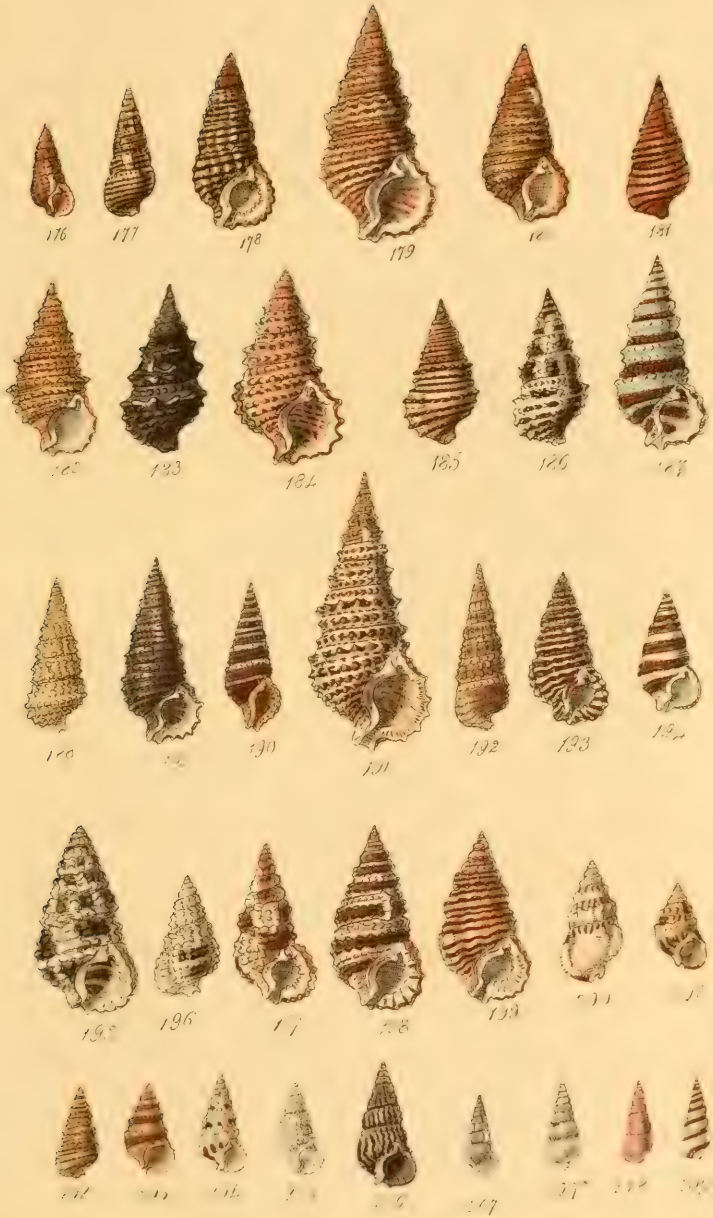










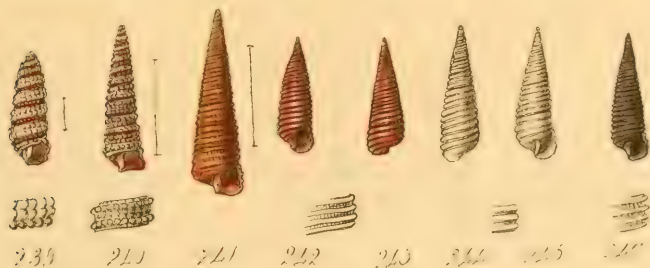
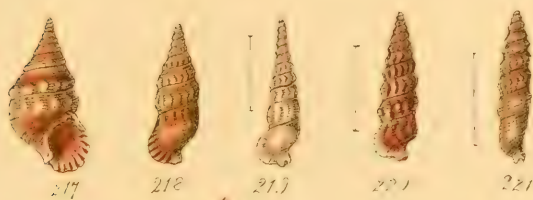








# PLATE.











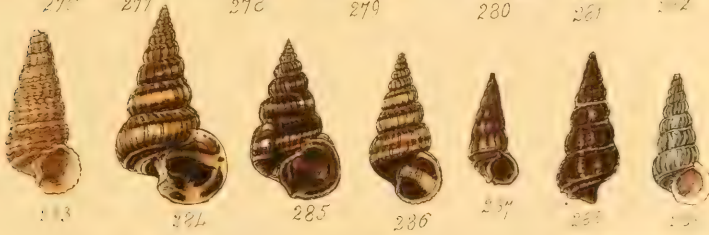
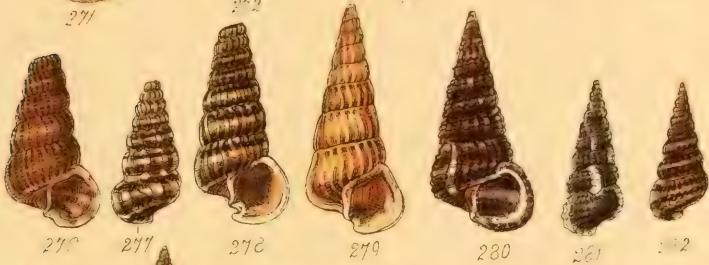
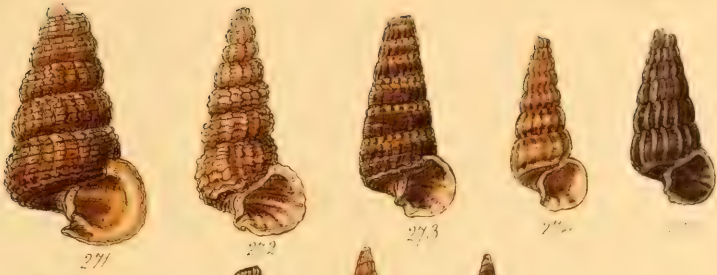
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# MONOGRAPHS

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The supplementary plates and descriptions of *Cyclostoma*, pl. 31 a, 31 b, and pages 157\*, 168\*, should be placed following pl. 31 and page 156 in Vol. I., if that volume is still unbound. If not, at the end of Vol. II.

As the plan formerly recommended, of binding the plates separately from the text, does not seem to succeed, perhaps it will be better to place the plates after the text of each genus. For the convenience, however, of those who wish it, a second copy of the Title and Contents is given.



## NOTICE.



IN publishing the completion of the Second Volume, the Editor again thanks his friends for their support, and again apologizes for all delays. Any considerable increase in the former will be followed by a decrease in the latter.

Many of the Subscribers are already aware that the Editor's father, Mr. G. B. Sowerby, F.L.S., to whom they are indebted for several Monographs, has been removed by death, after a life devoted to Science. His family, his acquaintances, his commercial patrons, and his fellow labourers in Natural History, will ever remember him with affection and honour, as a husband, a father, a friend, a man of integrity, and a useful contributor to knowledge.

The business at 70, Great Russell Street, is continued by a part of the family.















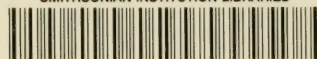








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